

30.5 Stack
CL

UNIVERSITY OF ILLINOIS LIBRARY

MAY 14 1915

ESTABLISHED 1848



Registered in
P. & Pat. Office

COLMAN'S RURAL WORLD

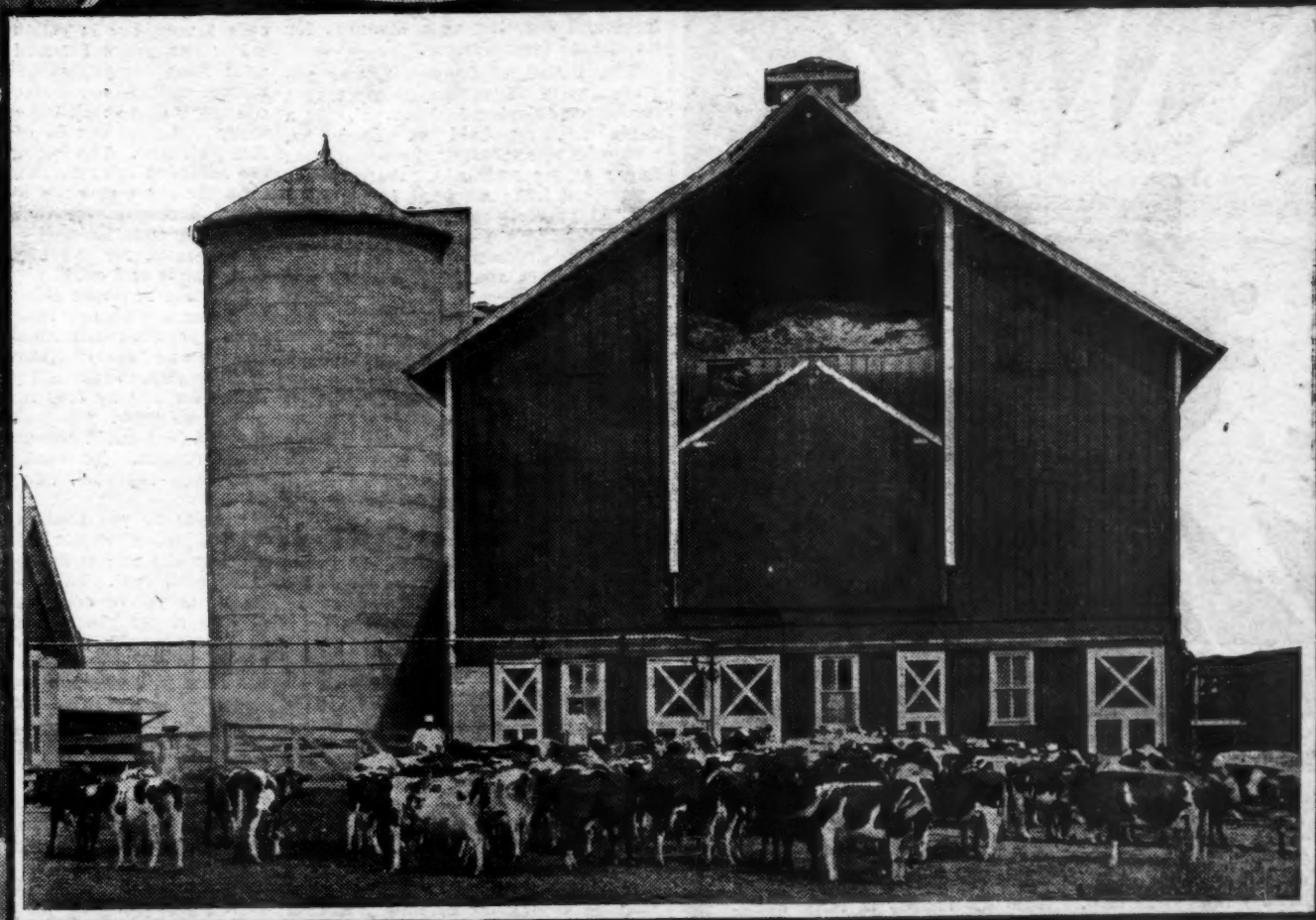
DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

OLDEST AGRICULTURAL AND LIVE STOCK JOURNAL IN THE MISSISSIPPI VALLEY

Sixty-Eighth Year.

ST. LOUIS, MO., MAY 13, 1915.

Volume LXVIII. No. 19.



Special Silo and Dairy Number

MORE and BETTER WHEAT
from the acre at less cost to grow.

—Two hundred to four hundred pounds of

Armour's Fertilizers

drilled in at seeding time will promote rapid root-growth, insure early maturity, heavy grain and more of it; reduced bushel cost; a good clover catch and a more profitable grain crop—

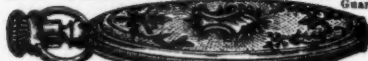
IT'S THE YEAR the world needs the grain.

Write for "More Money From Wheat."

ARMOUR FERTILIZER WORKS

Chicago, Ill. Baltimore, Md. Nashville, Tenn. Dept. 118, Greensboro, N. C.

21 JEWELLED YEAR SOLID GOLD FILLED WATCH, \$5 95



Guaranteed genuine 21 ruby jeweled watch, both case and movement guaranteed 20 years, latest Railroad model, adjusted to 3 positions, also heat and cold, patent regulator, exposed winding wheel, double sunk white enamel dial, heavy spade hands. Elegantly engraved gold filled case, either open face or hunter style. Movement stamped and guaranteed 21 Jewels, case stamped 20 year guarantee. Worth \$25 to anyone who requires an absolutely accurate timekeeper. Biggest bargain ever offered. Send your name and address and we will send this watch C.O.D. by Insured Parcel Post. Pay your postman \$5.95 when you receive the watch. Satisfaction Guaranteed or money refunded. Order today, mention open face or hunter style. **ARMOUR WATCH CO., Dept. 5 L, CHICAGO, ILL.**



No. 5 OLIVER

This Beautiful Oliver on Free Trial

\$4 a Month if You Keep It

Now \$56 Instead of \$100

Simply send us the coupon below and we will place in your home or office this beautiful modern typewriter, the Oliver No. 5. Examine it, test it, use it a few days. Try the Oliver free, before you pay us a cent. If you decide to keep it, take a year to pay. Remit as low as \$4 per month. If you decide not to keep it, send it back at our expense.

The catalog price of the No. 5 Oliver is \$100.00. Yet we save you, because of our simple way of selling, \$44.00!

We get these Olivers fresh from the factory in large quantities. Then we have cut the selling cost tremendously. We have no salesmen, no commissions, no branch houses. All this extra saving is yours.

Guaranteed for Life

Did you ever see a more beautiful typewriter? It is easiest to operate and wonderfully durable. It has visible writing; U-shaped type bar, making possible lightest touch known; built-in tabulator, back spacer, marginal release, universal keyboard with six extra characters. Each machine full standard size, complete with every accessory.

Judge this Oliver yourself. Remember, we let you try it free. Send the coupon for it. Send it now, else you may forget it.

TYPEWRITERS DISTRIBUTING SYNDICATE
1510-27E Wabash Ave., Chicago.

Date _____
Typewriters Distributing Syndicate
1510-27E Wabash Ave., Chicago.

Gentlemen: Ship me an Oliver Typewriter No. 5 for examination. If satisfactory, I agree to remit \$4.00 after 5 days from date I receive the machine, as full payment for one month's rental and \$4.00 each month thereafter as rental for the use of the typewriter. When I have paid you \$56 in this manner the typewriter is to become mine. Until then the title to remain in you. Otherwise I will return typewriter to you at your expense. (201)

Name _____
Address _____

WHAT OUR READERS THINK & DO

NOTES ON EARLY HISTORY OF DAIRYING IN MISSOURI.

Editor, Rural World:—The first meeting of the Missouri State Dairy Association after organization was held at Sumner in Chariton county, "Uncle John" Patterson was there and to him had been assigned the task of reading an essay on raising a calf by hand. This was "Uncle John's" first effort in public. Soon after he began reading the visibilities of the audience became aroused, and turning to me, he said: "I cannot read this; these people are laughing at me." I said: "No, Mr. Patterson, they are not laughing at you, but at your vivid description of the calf's actions. Go on, you are making good."

While walking down the street at the noon hour with the agent of a refrigerator company, the latter remarked, "Well, the ugliest angel that ever entered heaven will enter when 'Uncle John' dies. He has his ticket already. Any man who can treat a calf as he advises has his ticket in advance."

From that time forward, as long as he lived, Mr. Patterson was an active worker for the promotion of better dairying in Missouri. He loved the farm and dairying as a business for its special improvement.

Wm. Bruns, of Concordia, was another one of the early active workers for better dairying in Missouri. At a dairy meeting held at Louisiana, where he was speaking, he pointed his finger at me and said, "there is the man that told me what I was fitted for." I have always felt proud of the distinction, as the early history of the Concordia Creamery will show.

A few years ago I was stopping at a hotel in Jefferson City. I said to the proprietor: "Where did you get that butter you had on your table?" He answered, "The Concordia band came here to play a few years ago and brought a small tub of butter which they requested put on their table. It was so good that ever since then my table has been supplied with Concordia butter."

Soon after the organization of the State Dairy Association, the creamery builder and furnisher, Sharp, became very active. We said to those about to embark: "Go slow; be sure you like the cow and that you have staying qualities, as this milk business lasts 365 days in the year and must be attended to at regular hours twice a day."

My experience is that a well kept small dairy pays much better than a large dairy. In a large dairy come frequent changes of caretakers and milkers, which is always a detriment. Cows become attached to their milkers, if kind and gentle—and no other kind should be allowed in the dairy.

A few days ago I met a young man who came to me and shook my hand warmly, calling me by name. I said that I couldn't recollect him. "Well, I shall never forget you," he replied. "You came to my father's place when I was a boy. A cow and I were haying it. I was beating her to make her stop kicking, when you said to me: 'Son, you might just as well stop. That cow will have the last lick.' I have never beat a cow since."

One of the meetings of the old association was held in Kansas City. Governor Colman was then the president of the association. During the meeting it became apparent that Kansas City was preparing to capture and head the organization. At the evening meeting a motion was made and carried to hold the business meeting at 9 a. m. next day. The old boys, being accustomed to early rising were on hand promptly and Governor Colman was re-elected by a rising vote.

The most valuable cow in the dairy is the persistent milker, one that gives a fair quantity of good quality, 10

months out of the year. A cow will last much longer and bring a much better calf if permitted to go dry two months out of the year. Don't think you can feed butter fat into the milk of a cow that gives poor milk. If she is a 3-per-center, no amount of the best of feed will materially increase the quality. Test your heifers soon after they have their first calves, and, if the butter fat is low, you had better let them go.—J. L. Erwin, Missouri.

"WHY MILK AND BUTTER ARE SOMETIMES YELLOW."

Editor, Rural World:—The explanation in the Rural World of April 23, may be satisfactory to the experimenters at Columbia College of Agriculture, and to some of the readers of the Rural World. To a person who has passed the allotted time here, it does not explain. Only five years ago, two men who had spent years in making butter and cheese, made the statement to the writer, that they could feed butterfat into milk. If that could be done, it would revolutionize the dairy business.

The popular belief, as defined in the article mentioned, has more reason in it than the feeding of butter fat into milk. Any farm woman in Missouri, who has handled the milk of different breeds of cows, knows that the Channel Island cattle give milk richer in butter fat than cattle of other breeds. If she is a close observer, she knows as well that the butter made from the milk of Channel Island cattle is firmer and stands up better. She also knows both the milk and the butter from Channel Island cattle (Aldernes, Jerseys and Guernseys) on the same feed, at the same time, is not only firmer, but is yellower in color.

For two years I tested samples of milk from all grades of cows. The richest sample I found, showing 8 per cent by the Babcock tester, was chalk white and was the milk of a registered Red Poll cow. The butter globules of the Channel Island cattle are larger than the same globules in other milk, which accounts for their gathering with less agitation and probably to a large extent for the higher color in both butter and milk.

It would be impossible to make butter from a Channel Island cow, that gave 6 per cent milk, absolutely white, smooth and "lardy" looking just as it is impossible to take a 3 per cent Holstein cow and by feed make her give 5 per cent milk. No doubt some have thought they could accomplish both of these results. No such success has ever been reported, nor will it ever be.

In that 90 per cent of our richest milk is yellow, public opinion, as outlined in the article above referred to, is correct, yet, cattle fed on feed strong in yellow coloring matter will not be richer than the milk of the breed from which they are bred. It is not the color in milk or butter, but the breed characteristics that determine the fat contents.—L. E. Clement, Missouri.

NOTES FROM "EGYPT."

Editor Rural World: We had a good rain today, (May 2), the first of any consequence since February.

We fear that some spring-sown grass is dead. There was not much corn planted in April.

We have lost faith in big seed houses. Last year we nearly lost a crop by our faith in a man who grew the ten "champion" ears in Indiana. Not one-third of it germinated.

(Continued on Page 15.)

Users Of Threshing Supplies
Helling, Oils, etc., let us mail you a copy of our 1915 CATALOG: It's FREE for the asking. Weber Imp. & Auto Co., 1900 Locust St., St. Louis.



Vanity Case FREE

Made of rich German silver, with fancy flower border, the good mirror and powder puff compartment, place in quarters, dimes and nickels, also strong catch that will hold cards and bills, 10-inch chain. Given free to anyone for selling 20 large art and religious pictures at 10c each. We trust you with pictures until sold and give you a beautiful picture as an extra gift for promotion. Send your name today. People's Supply Co., Dept. K-7, 716 Locust Ave., St. Louis.

COLMAN'S RURAL WORLD

Vol. 68. No. 19.

ST. LOUIS, MO., MAY 13, 1915.

WEEKLY.

Premier Performers at the Pail

Champion Milk and Butter Wonders of the Dairy World and of Each of the Four Leading Breeds—A "Who's Who" in Elite Cowdom.

ALL honor to the champion dairy cows! Marvelous indeed are the records for either milk or butter production now necessary for an individual to claim the championship of the world or even the championship in her own breed. Official testing is practiced by all the dairy breed associations, who together have tested upwards of 30,000 cows, the Holstein-Friesian Association having twice as many to its credit as all other associations combined. This official supervision of an animal's achievements makes the resulting record accurately determined and honestly presented to the public. Entries for world's records are watched closely from start to finish of the year by a half-dozen or more experts and officials.

The records of the cows described in this article are up-to-date and can be depended upon. While these are American records they may also be, and are, considered world's records. It is safe to say that there are no Holstein-Friesian, Guernsey, Jersey or Ayrshire cattle in Europe that will equal in productive capacity, animals of the same breeds in America; because the breeders of improved breeds of dairy cattle in America have made a greater success in the development of pure-bred cattle, of which the ancestry was originally imported, than have the owners of like breeds of dairy cattle in the original homes of those cattle.

World's Champion Milker.

The Holstein-Friesian cow, Tillie Alcartra, is the greatest milk producing cow in the world, having produced in one year more milk than any other cow of any breed. She is owned by A. W. Morris & Sons Corporation, Woodland, California. Her record is 30,452.6 pounds of milk in one year, containing 951 pounds of butterfat, equivalent to 1,189.12 pounds of butter. The record was formerly held by Creamelle Vale, with 29,591.4 pounds of milk.

Tillie Alcartra is not a native of the golden state. She was bred by McKay Brothers, of Buckingham, Iowa. Although her ancestry was such as to hold out promise of a great future, she did not altogether please the owners into whose hands her dam left her. She was inclined toward fleshiness and lacking in type. Just then it was that the Morrises of California were looking over the east for desirable blood lines to carry out their plan to

establish in that state one of the largest breeding establishments of Holstein cattle in the country. When their representative visited McKay Brothers at Buckingham, where little Tillie Alcartra was living, it wasn't much of a matter to make a sale for the Morrises had the faith in the Alcartra blood line to make up for the lack of confidence that the McKays had in the pudgy little calf.

So it happened then that Tillie Alcartra went to California in early life. In the alfalfa and sunshine of Yolo county she thrived and rapidly took on the form of a future cow of great promise and as soon as she gave birth to her first calf she gave proof of this by producing up to 73 pounds of milk as a two-year-old and as a junior three-year-old 95 pounds, and for a year in this class she broke the world's record by producing 21,421 pounds of milk. In two consecutive yearly tests she gave 51,874 pounds of milk and 2,030.22 pounds of butter. She was awarded first prize by the Holstein-Friesian Association on her year's production of butterfat in her three-year-old form and also on her seven-day official test eight months after calving.

With such a showing in her early milking career, Morris & Sons a year ago decided to send her against the world's record. The year ended on November 13, 1914, and when the account of her year's work was closed and footed up it mounted

up to 30,452 pounds of milk containing 951 pounds of butterfat, equivalent to 1,189 pounds of butter on the 80 per cent butterfat basis adopted in the official testing of Holstein cows. In the last seven days of her test her total milk was 451 pounds of milk and 18.52 pounds of butter. In three consecutive years, including her record with first calf, Tillie Alcartra has a total yield to her credit of 66,711 pounds of milk and 2,586 pounds of butter. She was sired by Alcartra Polkadot Corrector.

World's Champion Butter Cow.

The greatest butter-producing cow in the world also is a Holstein-Friesian, and her name is FINDERNE HOLLINGEN FAYNE. Her record for one year, completed in March, is 24,612.8 pounds of milk, containing 1,116.05 pounds of butterfat, equivalent to 1,395.06 pounds of butter, on the 80 per cent basis.

She freshened at the age of three years, four months, 14 days. Her sire is King Hengerveld Aaggie Fayne; her dam is Mutual Hollingen Fayne. She was bred by Mr. Bernhard Meyer, Finderne, N. J., and is now owned by The Somerset Holstein Breeders' Company, Somerville, N. J. The test was made under the supervision of the New Jersey Agricultural College and eight different supervisors were employed in the conduct of the test. From the amount of fat produced any competent butter-maker could make 1,302.06 pounds of the best commercial butter. During the year's test Finderne Hollingen Fayne is said to have increased in weight 250 pounds, now weighing about 1,450 pounds. This wonderful production gives this young Holstein-Friesian cow place above all other cows in the world and makes her the world's dairy queen, and it is especially remarkable that this record was made at so early an age.

The world's butter record was held until recently by a Guernsey, Murne Cowan. And the butter record for Holsteins was held formerly by Banostine Belle De Kol, with 1,058.34 pounds of butterfat from 27,404.4 pounds of milk.

The Champion Guernsey.

In February and early March, the champion butter cow of the world was Murne Cowan, a Guernsey, but since the performance of Finderne Hollingen Fayne, a Holstein.

(Continued on Page 9.)

Queens of the Dairy World

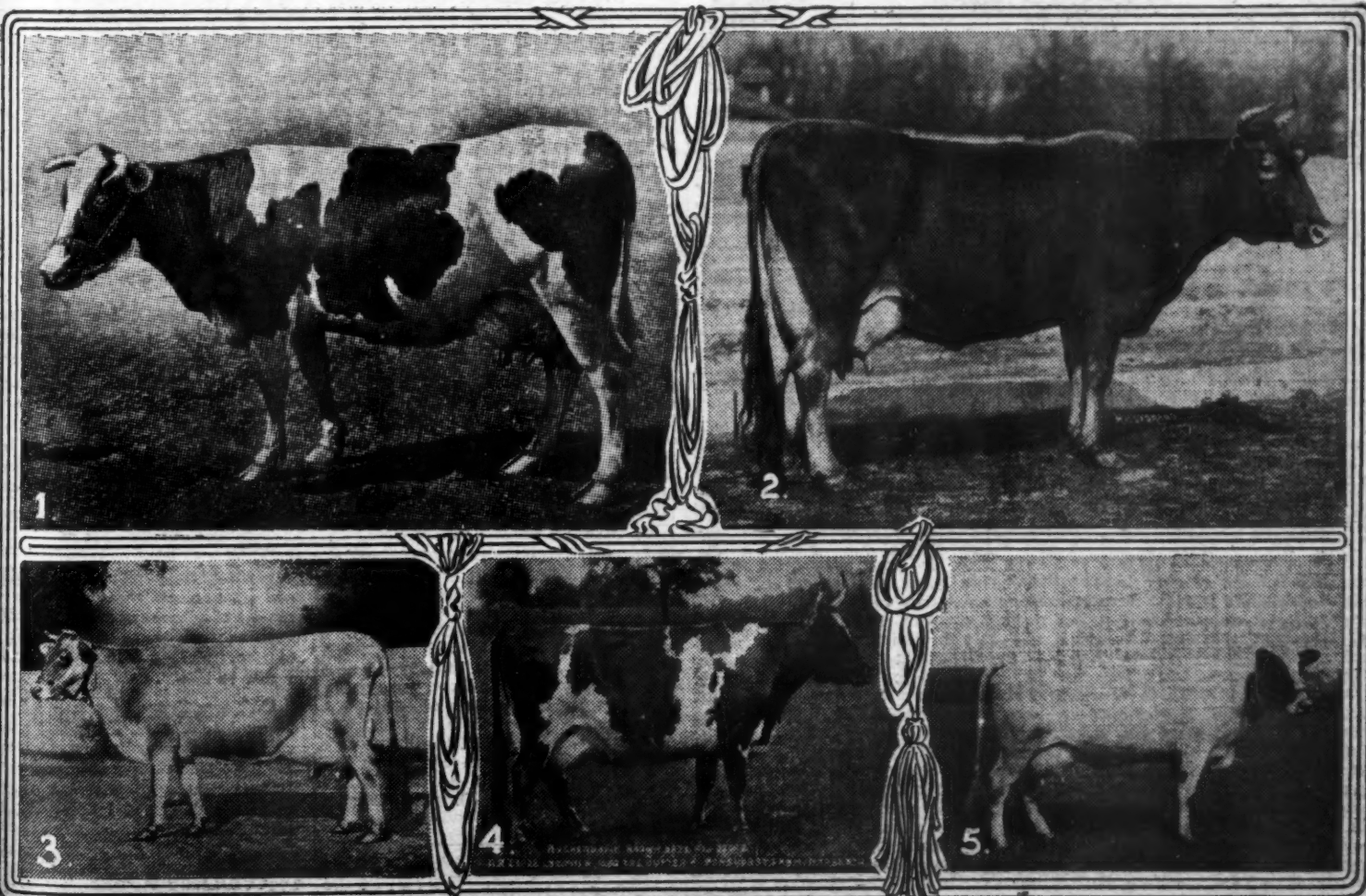
1. World's champion milk-producing cow, Tillie Alcartra, a Holstein.

2. Until recently, world's champion butter producer, Murne Cowan, a Guernsey—still champion of her breed.

3. Champion in the Jersey breed, Sophie 19th of Hood Farm.

4. Champion in the Ayrshire breed, Auchinbrain Brown Kate 4th.

5. World's champion butter cow, Finderne Hollingen Fayne, a Holstein.



Success In Dairying Depends Upon Kind of Cows Kept and Kind of Care Given---That's Easy.

By John K. Rodgers, Wisconsin.

THE first essential of a successful dairy business is the right kind of cows. There are several good breeds of dairy cows, which will give satisfaction if they receive the right kind of treatment. The finest cows in the world will dry up and lose flesh if they receive inferior feed at irregular intervals, are not milked properly, and do not have access to warm, dry shelter. The cows must be cared for properly and receive a balanced feeding ration. Many farmers are making money from scrub cows simply because they care for them properly; but under present day conditions the scrub cow should be abolished from the dairy herd. There is, or should be, considerable difference between a dairy herd and a herd of stock cows.

Improve the Herd.

Many of the more successful dairymen believe it is advisable to purchase a few head of high grade cows and gradually build up the herd. In any kind of business a man must learn as he goes along, and dairying is no exception. Usually better results will be obtained in the long run if the herd is composed of a few high grade cows at the start, and is gradually built up. A large herd of scrub cows seldom will give satisfaction. The scrub will eat as much as the

order to supply the milk she cannot produce as she should.

The "boarders" should be weeded out and sold. A few boarders will absorb the profits from the high grade cows. The way to weed out the boarders is to carefully weigh the feed and figure the cost of milk production; if the cow cannot pay for her feed and care and return a profit it is advisable to sell her, for she is not profitable. The successful dairyman weeds out the non-producers, filling the ranks with high grade cows. This process gives him a herd of profitable cows.

When selecting his cows the dairyman should use his own judgment and stock up with a breed which suits him. There is a wide variance among dairymen regarding the most desirable breed of cows.

Grow Feed on Farm.

The staples of the dairy cow's ration are grown upon the farm. The dairyman who attempts to dispense with the assistance a silo gives him, is putting himself at an unfair disadvantage. Silage, alfalfa hay, cowpea hay, clover hay, etc., forms the bulky portion of the cow's ration. It is a well known fact that the ration for the dairy cow should be as bulky as possible. It should be of good quality, free from any indigestible

will give when fed a balanced ration.

Expensive dairy barns are desirable; but all dairymen do not care to build them. The dairy barn need not be overly expensive. The first essential is sanitation. An abundance of sunlight should be admitted facilities for ventilation should be provided. It is important that all refuse be removed at frequent intervals. Roomy mangers are desirable. The stalls and stanchions should be well constructed; for cows occasionally become injured when quartered in clumsy stalls.

Comfort and Cleanliness.

If all the details of cleanliness are attended to the milk will be pure. Clean cows, clean dairymen, clean pails, separator, etc., are essential.

Marketing the dairy product is an important part of the business. The dairyman should always endeavor to market his products at the best advantage.

Usually it is preferable to have the cows freshen in the fall. The dairy products generally command good prices during the fall and winter, but there is money also in summer dairying when properly conducted.

The average farmer becomes a successful dairyman without much trouble if he attends to the details of the business and acquires information as he goes along.

WHY CO-OPERATIVE CREAMERIES OFTEN ARE A FAILURE.

Co-operative creameries are very important, in developing a section along dairy lines, but so many have been started in the wrong way that farmers have come to believe to a great degree that the small co-operative creamery is a failure. However, statistics from Wisconsin and Minnesota show that the large number of co-operative creameries have been greatly instrumental in increasing the output of dairy products, in improving the quality of those dairy products, and in raising the price paid for butter fat in those states.

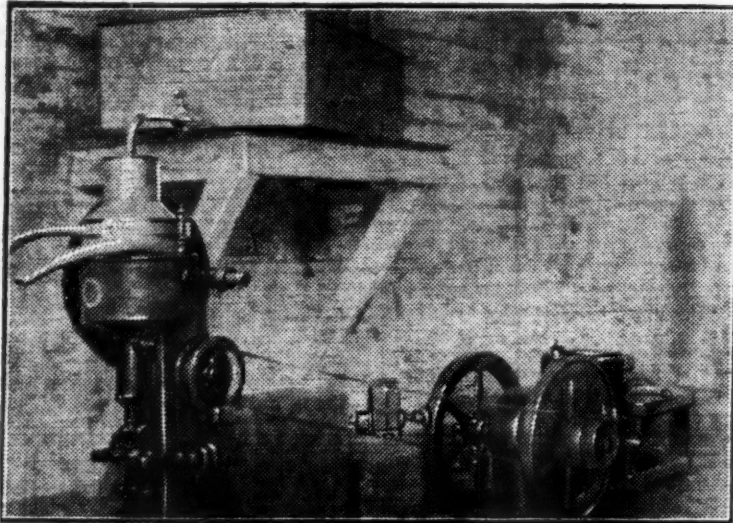
In the first place, too many creameries have been started by promoters who were interested only in getting a good price for their machinery and building, and were little interested in the welfare and future prospects of the creamery. These promoters have created sentiment among the business men of certain towns and have caused them to believe that a creamery would be a great boom to the town and locality. Oftentimes, there were only a few cows within a radius of six miles, and perhaps the farmers were not interested in dairying, but were following some other line of farming. Four hundred and fifty dairy cows should be available within this radius to make it reasonably safe to start a creamery.

Farmers Should Control.

Too often the creamery is organized and operated by the towns people, and the farmers have little to say in regard to its operation. In order to make a creamery truly co-operative and successful, the creamery should be operated entirely by the farmer. The business man in town might be permitted to buy stock and receive dividends, if such were issued, but they should have no word or vote in the operation and control of the creamery, unless they are milking cows and sending cream to the creamery.

Poorly qualified butter makers or managers are sometimes responsible for the failure of creameries after they have been organized and started. A butter maker should not be placed in charge of the butter making room simply because he has agreed to work for a smaller salary than another. He should be thoroughly examined as to his qualifications and ability to make butter and, as a rule, it is generally safer to employ a \$100 man than a \$75 man. A butter maker or manager should be educated in making butter and in the operation of the creamery, and should have some experience before being employed as head butter maker or manager.—O. W. Holmes, Idaho.

Better sell off the fence-breakers before they educate the rest of the herd to this habit.



A Big Separator Run by a One-Horse Power Gas Engine, a Necessary Combination on Large Dairy Farms.

pure-breeds, and will not give nearly so much milk. When feed is as high as it is at present boarders are not desirable.

A pure-bred bull should be selected. He is the only means by which the standard of the herd can be raised. It is poor policy to purchase a number of high grade cows and keep a bull of poor quality. In this case the standard of the herd will be steadily lowered. On the other hand a pure-bred bull mated with common cows will produce offspring superior in every respect to the cows. Selecting a bull of unknown value is always a risky process. It is advisable to purchase an animal that has been tried, even if more money must be expended. Getting the right start will result in continued success later on.

Give Regular Attention.

There is a vast difference between keeping cows on the general farm and running a large dairy. Usually the farmer does not care for his cows properly. The successful dairyman does not neglect one of the essentials. He knows that regularity in feeding, watering and milking is the keynote of success. The contented cow gives the maximum flow of milk. There is only one way to keep her contented; she must receive the ration which her system demands. Her system demands a balanced ration which is composed of milk-producing and flesh-producing feeds. If she is to be profitable the dairy cow must be strong and vigorous. If her body suffers in

substances. A variety of roughness should be available. The more feed the dairyman can grow on his farm, the greater his profits will be. He should study the subject, and lay his plans so an abundance of the different varieties of crops which form a balanced ration will be available. Of late, pastures have shown a tendency to dry up at inopportune times. The dairyman who has a supply of "canned" pasture doesn't worry if the grass does dry up. Silage is the dairyman's salvation.

The grain ration for the dairy cow should be compounded scientifically. Too much grain is injurious, too little will cause a decrease in the flow of milk. Corn chop, bran, linseed meal or cottonseed meal will form a good grain ration when silage and alfalfa hay are fed. One successful dairyman gives one pound of meal, four pounds of corn chop and two pounds of bran along with the silage and alfalfa ration. He feeds about 40 to 45 pounds of silage and alfalfa hay per head for a day's ration. He gives the cows three times as much silage as alfalfa hay. This ration keeps the cows on a full flow of milk; for it is balanced properly. If the dairy cows are good ones a balanced ration of this nature will result in a profit. The poorest ration for the dairy cow, and a ration which is fed by many farmers, is corn chop and fodder or corn stalks. This ration is too expensive; for the cows will not produce half as much milk as they

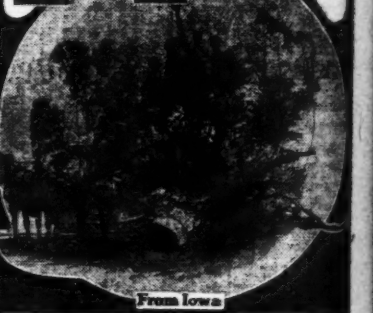
Delivered TO YOU FREE
on approval and 30 DAYS TRIAL



SEND NO MONEY but write today for our 1915 catalog of "Ranger" Bicycles, Tires and Sundries at prices so low they will astonish you. Also particulars of our great new offer to deliver you a Ranger Bicycle on one month's free trial without a cent of expense to you. If you can make money taking orders for bicycles, tires, lamps, sundries, etc., from our big catalog, it's free. It contains "combination offers" for re-fitting your old bicycle like new at lowest cost. Also much useful bicycle information. Send for it. LOW FACTORY PRICES direct to you. No one else can offer such values and terms. You cannot afford to buy a bicycle, tires or sundries without learning what we offer you. Write now. HEAD STOLE CO., Dept. T-316, CHICAGO, ILL.

1000% Returns From

the use of a Hercules Stump Puller. Bumper crops instead of stumps. Big money in place of taxes. \$1,250 from 40 acres the first year—\$750 in extra crops every year after. Get the catalog of the



How to Make Farming Pay

Agriculture

The Best Handbook for the Farm

By OSCAR H. BENSON
of the United States Department of Agriculture and

GEORGE H. BETTS
of Cornell College, Iowa

164 Photographic Illustrations, 444 Pages

THIS book shows how to raise bigger and better crops with less effort and with less expense, how to improve live-stock, how to increase the product of orchards. It teaches how to conserve resources and reclaim lands, and how to treat and cure live-stock diseases.

Everything of value known to the Government expert and taught by the Agricultural School is to be found in a nutshell within the pages of this book. It is complete, compact and practical, and its greatest value is to show the results of actual experience. It summarizes just those things that the farmer, fruit-grower and stock-raiser wants to know.

On Farm Crops, Horticulture, Soil, Farm Animals and Farm Economics, this work contains the latest and most accurate knowledge obtained by the United States Department of Agriculture and by the leading Agricultural Schools.

Price \$1.50, Postage Prepaid
COLMAN'S RURAL WORLD,
St. Louis, Mo.

COLMAN'S RURAL WORLD

A. B. CUTTING, Editor.

Founded by Hon. Norman J. Colman

Published by Colman's Rural World Publishing Co.

Advertising Representatives,

JOHN D. ROSS,

909 Ohio Bldg., Chicago, Ill.

THE HOPKINS SPECIAL AGENCY,
150 Nassau St., New York City.

R. R. RING,

707 Globe Bldg., Minneapolis, Minn.

W. W. COCHRAN,

1021 So. 36th St., Omaha, Neb.

1915	MAY							1915
Sun	Mon	Tues	Wed	Thurs	Fri	Sat		
							1	
2	3	4	5	6	7	8		
9	10	11	12	13	14	15		
16	17	18	19	20	21	22		
23	24	25	26	27	28	29		
30	31							

STATUS AND FUTURE OF DAIRY- ING IN UNITED STATES.

According to the United States census of 1910, there were in the United States 20,625,432 dairy cows. The average butter fat production of the dairy cows of this country is 160 pounds, annually. Figures are always more or less fascinating but in this case they do not show the true status of a great industry.

In the first place there is no clear line of demarcation between the cows kept for dairy purposes and those kept for purposes of beef production. A great many herds are kept to produce both beef and milk. It would be hard to convince a lot of farmers that this is not, for them, the most profitable practice, and in many cases it may be. At least, it is often the only course open, for the simple reason that a man may not have capital to invest in such stock as might be more profitable.

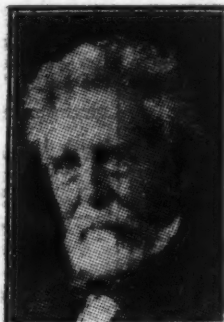
The great number of dual utility herds—"dual purpose"—is hardly the correct term—lowers the figures of average butter fat production. A portion of the milk from the herd is diverted into other channels. From this viewpoint, it becomes apparent that a census of strictly dairy cows would make a better showing so far as production of butter fat goes. And it is equally apparent that the "average dairy cow" makes more money than some writers would have us believe. Good dairymen tell us that a cow that gives only 160 pounds of butter fat annually is not profitable. She must give 175 pounds to make any profit for her owner. But when the cow that gives 160 pounds of butter fat annually, or even down to 125 pounds, is a member of a herd which also produces some beef, the case is seen in a different light. Of course we all admit that a great many cows are, in the most favorable light, kept at a distinct loss.

The fact of the matter is that our dairy industry is in such a state of transition, and is so mixed with the beef industry, that figures can not show its true status. There are thousands of farmers who milk a herd that is classed as a dairy herd, but which is just as much a beef herd, so far as judgment by production is concerned. Many of these men are working for the possession of a true dairy herd, by grading up, and many are satisfied with things as they are. Very few of them will admit that their herds are losing money for them—not if they are the type of farmers who figure the value of a dependable side-line, a steady income and the importance of maintaining the fertility of the soil.

There will be more dairy herds evolved from these herds of mixed production in the future. The increasing cost of land and the great

Colman's Rural World was established in 1915 by Norman J. Colman, who later became the first United States Secretary of Agriculture. As a champion of advanced agriculture, this journal has attracted nationwide support, and is today held in highest regard by thousands of intelligent and discriminating readers.

Colman's Rural World strives to bring the greatest good to the greatest number at all times. Each issue is replete with helpfulness and good cheer. It is read for profit and pleasure, and yields a satisfactory return to each individual subscriber. Our advertisers are rewarded with excellent results.



NORMAN J. COLMAN,
First U. S. Secretary of
Agriculture.

Colman's Rural World is mailed postpaid to any address in the United States or island possessions for one dollar per year or three years for two dollars. All subscriptions payable in advance. Remit by draft, registered letter, post office or express money order. In changing address give old and new addresses.

Colman's Rural World is published every Thursday at 712 Lucas Avenue. Contributed articles on pertinent subjects are invited. Photographs suitable for reproduction also will be welcomed. Address all communications to COLMAN'S RURAL WORLD, 712 Lucas Ave., St. Louis, Mo.

Entered in the postoffice at St. Louis, Mo., as second-class matter.

economy of the dairy cow as a food producer point the way. Dairying is the hand maiden of a stable, permanent agriculture on high priced land. The growth of co-operative creameries, cheese factories, cow testing associations and the like, testify to development of the dairy tendency, as they augment it.

In the meantime, let us look behind the figures in forming our judgments—remembering the freedom with which the term "dairying" is applied. Dairying is, all points considered, in a healthy, growing, very promising condition. Individually let us contribute as much to its betterment as we can, the main reason being that there is no branch of agricultural culture that better rewards industry, skill and capital invested.

WHEN BUILDING A SILO BUILD FOR PERMANENCY.

"Fir flooring" silos are going out of style. A well-known farmer of Kansas erected one last fall, called in all his neighbors, put in 80 tons of silage, and thought his stock would live happily through the winter. But about two weeks later the silo "busted." It couldn't stand the strain.

When a farmer builds a silo he should erect a good one. Tile and concrete silos are "stayers." They can stand the strain. The stave silos put out by reliable manufacturers also seem to give good service; but

it is folly for a man to expect to build a silo out of inch flooring and fill it to "the limit." It mightn't burst; again it might. The results are discouraging when a silo bursts; especially when roughness is scarce.

When planning to build a silo, the farmer should decide on a type which "has stood the test in his section of the country." It doesn't pay to experiment. If a man owns a piece of land he should erect the best silo, no matter if it costs twice as much as an inferior grade. The farmer who would build a barn out of building paper and expect it to stand, would be considered crazy. The silo is as valuable on the farm as the barn and should be just as substantial, if not more so.

When you know that a certain type of silo has a tendency to "bust," avoid it as you would avoid buying a horse that showed a tendency to die. A "busted" silo is worse than dead.

MILKING MACHINES STIMULATE PROGRESS IN DAIRYING.

The use of the mechanical milker means the development of the dairy business. The development of the dairy business means greater prosperity for the country. The farmer who goes into the dairy business enriches his soil and adds to his bank account. An increased bank account should mean the introduction of more high grade cows upon the farms of

this country, and this cannot be encouraged too strongly. The milking machine in a perfected state means the fulfillment of the dairyman's ambition.

The small, careless dairyman will not awake to his opportunities until his more earnest neighbors have gained a tremendous lead. The dairyman who is not interested in the machinery which lessens his labors and increases his net profits certainly is not of an overly earnest type.

The modern mechanical milker is not excessive in price, when one stops to consider the wonderful service which the machine will return to the owner who uses it with judgment. The man who buys a mechanical milker and abuses it will be disappointed; but the dairyman who invests in a machine and uses it correctly will have cause for rejoicing. There should be a milking machine on all farms where 10 cows or more are kept for dairying.

DOES COW TESTING PAY?

If the owner of a dairy herd does not know that every cow in that herd is paying for her board, it will pay him to find out. That's the answer to the question: Does cow testing pay?

In plenty of herds are to be found cows which give twice as much profit as others in the same stable besides rearing calves that are much more valuable. Many dairymen can tell the yield from the best cows, those that do give good profits—how many dairymen keep records of all their cows including those that might show a balance on the wrong side? Is there not the temptation to keep track of the production of cows that are doing well and are likely to make large yields and at the same time allow a few poor ones to remain in the herd and receive practically the same care, attention and feed?

The cold hard fact is that we have too long ignored the evident certainty that cows are not all alike in production or profit, but vary as much as dollar a day hotels in neighboring towns, as houses in adjoining streets, as rooms in the same house in the comfort and enjoyment offered. In our own interests we should recognize that there is the greatest difference in cows. Then we will be content to keep only those that are capable of returning profit.

The manure spreader is not a fad. It is a labor-saver and is here to stay.

Wash all milk utensils thoroughly and sterilize by use of live steam or sunlight.

It is estimated that it costs the farmer more to haul a bushel of grain than it costs a railroad to haul a ton of it. Reduce the cost!

40 Years Ago 20 Years Ago

In Colman's Rural World.

(Issue of May 16, 1875.)

In certain parts of East Tennessee, near Copper Mines, there prevails a disease among cattle, called milk disease; it is said to effect cows that have fed in dark, shady places.

A Missouri correspondent (who in St. Louis county has lost cattle and hogs similarly) claims that the disease is caused by the animals inhaling carbonic acid gas exuded from the soil.

The whole section lying between St. Charles and Mexico (Mo.) is well adapted to the dairying industry. St. Louis is paying out annually about \$300,000 to other states for butter and cheese. At least one-third of this amount might be produced in this section, thereby scattering \$10,000 per month, cash, among the farmers. How long before this section will be one of the most prosperous in Missouri?

(Issue of May 16, 1895.)

The owner of Alix, 2:03½, says that his champion trotter never to his knowledge took a step on the pace or an amble in harness or out on the track. She is a trotter, pure and simple.

The pasture fields will decide the fate of dairying in any region, and the industry must stand or fall with the ability of the farmers to keep up the grass supply. A pasture field should never be allowed to decline.

A dairy division has been created in the bureau of animal industry of the Department of Agriculture, and Maj. Henry E. Alvord has been appointed chief, at \$2,500 a year. The object of the division is to collect and disseminate information about the dairy industry of the country.

Silos for Dairy Farms

Invaluable In Winter and Summer—Facts and Figures On Building and Use.

WHY a silo anyhow? Is a short way of putting a question that has risen in the mind of every farmer who has not tested the silo and ensilage on his own farm.

1. By harvesting the corn as silage the entire crop, 100 per cent, or practically that much, is saved. Forty per cent of the feeding value of corn is in the stalk.

2. Silage is palatable and succulent feed, the nearest of any feed to grass that we have, and we have it in the winter time, when there is no grass.

3. Silage is a good conditioner for all farm animals, serving as a toning for the digestive tract and keeps the animal in a healthy condition.

4. A corn crop when harvested as silage can be stored in one-half the space required by any other method.

5. Twice as many head of live stock to the acre can be kept on the farm that has on it a good silo.

6. The man who feeds with silage always feeds with some leguminous hay like clover hay, cowpea hay, soy bean hay or alfalfa hay, and in addition

not worth much for pasture, the silo is invaluable. Not only can silage be fed profitably in the winter time, but it can be fed in the summer time, especially like 1914, when many farmers were compelled to sell live stock at a sacrifice on account of lack of pasture.

CONCRETE AND TILE SILOS DURABLE WHEN PROPERLY CONSTRUCTED.

An anonymous booklet, evidently prepared to discourage farmers from building concrete and tile silos, has been circulated in some parts of the country. The booklet consists of photographs of cracked and collapsed silos, and the examples shown represent what may happen when concrete and tile silos are improperly constructed, but they should not be used to discredit these types of silos.

Whenever farm buildings are not permanently located, or if for other reasons a temporary structure is desired, the wooden silo may be preferred to one of concrete or of other durable material. Where lumber is cheap, or where stone and gravel can not be readily obtained, the first cost of a wooden silo may be less than that of a concrete silo. But for a permanent structure it is generally best to construct of tile, concrete, cement block, or some other durable material. Silos properly built of these materials are not likely to be damaged by winds. They must be properly reinforced, however, or they will crack and eventually fall down.

In some cases the cracking of the concrete silo is caused by too small a proportion of cement used in its construction. More often, however, the trouble is due to improper reinforcement. Aside from the matter of reinforcing, most of the failures of concrete silos have been caused by poor and insufficient foundation.

The concrete silo should be built with a solid wall six inches thick and reinforced with steel rods or woven-wire fencing. The joints in each course of the wire fencing should overlap and the ends be tied.

It is sometimes stated that the silage next to the wall will spoil for a distance of six inches. If the silage is not well packed and if the inside walls are left rough, it will spoil at the edges, but this may happen in any type of silo. If the inside walls are comparatively smooth and coated with raw coal tar thinned to the consistency of paint, and the silo is properly filled, the silage will keep in good condition for several years.

The impossibility of moving is another argument which has been used against concrete silos, but a man who builds for permanence and has a livestock business definitely established has no occasion for moving the silo.

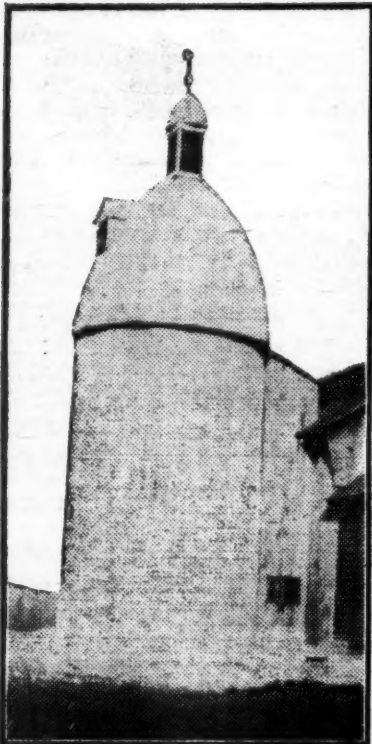
Some concrete and tile silos have been poorly constructed and improperly filled, but these are not sufficient reasons for condemning these types of silos. The unqualified assertion that tile, concrete, cement-block and brick silos are not durable is not based on facts.

Details for constructing wooden and concrete silos may be obtained by applying to the United States Department of Agriculture, Washington, D. C.

EASY TO BUILD CONCRETE SILOS.

Plans and specifications for the building of concrete silos will be furnished free of cost to any Missouri farmer who wants to build a concrete silo, upon application to the Agricultural Extension Service, College of Agriculture, Columbia, Missouri.

These plans have been prepared by the department of agricultural engineering, and by their use, any man who is handy with tools can build a set of silo forms. The directions for using the silo forms are so simple that every farmer who will follow instructions may become his own silo builder. After the silo is finished, the forms can be rented or sold.



A Cement Silo with a Metal Top. The Owner Fills the Top with Ensilage and When It Settles, He has all of the Cement Portion of the Silo Full.

tion to this can also feed some grain or some concentrate rich in protein, such as cotton seed meal, linseed meal, etc.

7. The man who feeds leguminous hays in connection with silage will of course grow the legume crops on his farm. When he does this he will follow nature's way, and the best way, to improve the fertility of the soil.

8. An addition of silage and protein concentrates to the ration of corn and hay commonly fed will not only make a better and more balanced ration, but will result in the production of a better quality of manure.

9. By saving the whole corn plant as silage and feeding this in combination with corn, cotton seed meal or linseed meal and a legume hay a man has not only a better quality of manure, but more manure.

10. Corn in the silo is handy and easy to feed. There is no exposure to rain, snow, mud and bad weather—feed or feeder. There is no digging of shock fodder or shock corn out of the snow and frozen ground.

11. Silage takes the place of high priced hay during seasons when practically all feed is high priced and scarce. A 40-bushel yield of Reid's yellow Dent corn will make ten tons of silage to the acre.

12. During dry seasons when the grass dies down in midsummer and is

In addition to supplying plans and specifications, the college of agriculture will, as far as possible, send a man to give personal assistance to those farmers who desire help in starting a silo. This man will oversee the setting up of the forms and the proper mixing of the concrete. He will see that the reinforcement is properly placed and show how to raise the forms. He will stay on the job as long as his assistance is needed.

Farmers who receive personal help in starting concrete silos must pay the expenses of the man who gives the help. There will be no charge for

his time. Arrangements should be made well in advance. Only a limited amount of assistance can be given and the college of agriculture will follow the rule of "first come, first served." No help can be given until the foundation is in, but the building of the foundation requires no special supervision. Further information and bulletins on silos and silage may be had by writing to the College of Agriculture, Columbia, Missouri.

It is a good plan to cull out the poorest cows while butterfat prices are lowest.



Canada is Calling You to her Rich Wheat Lands

She extends to Americans a hearty invitation to settle on her FREE Homestead lands of 160 acres each or secure some of the low priced lands in Manitoba, Saskatchewan and Alberta.

This year wheat is higher but Canadian land just as cheap, so the opportunity is more attractive than ever. Canada wants you to help to feed the world by tilling some of her soil—land similar to that which during many years has averaged 20 to 45 bushels of wheat to the acre. Think what you can make with wheat around \$1 a bushel and land so easy to get. Wonderful yields also of Oats, Barley and Flax. Mixed farming is fully as profitable an industry as grain growing.

The Government this year is asking farmers to put increased acreage into grain. Military service is not compulsory in Canada but there is a great demand for farm labor to replace the many young men who have volunteered for service. The climate is healthful and agreeable, railway facilities excellent, good schools and churches convenient. Write for literature and particulars as to reduced railway rates to Superintendent Immigration, Ottawa, Canada, or to

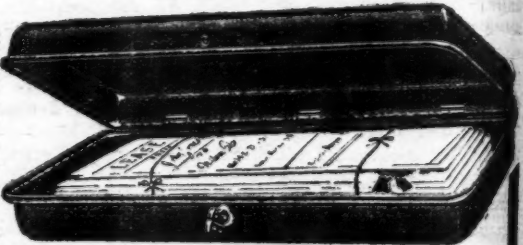
GEO. A. COOK,
125 W. 9th St., Kansas City, Mo.
C. J. BROUGHTON,
112 W. Adams St., Chicago, Ill.
Canadian Government Agent.

FREE This Steel Document Box

Made of Bessemer Steel. Fire and Burglar Proof.
Sent Anywhere in the U. S. Prepaid

Every person needs a Strong Steel Lock Box of this kind. Deeds, Mortgages, Bonds, Notes, Insurance Policies and Private Papers are too valuable to have pigeon-holed loosely about the house. Even though you keep them permanently in a safe deposit vault, it is dangerous to carry them loosely in your pocket to and from the bank.

This Steel Document Box is constructed of Bessemer steel and heavily coated with black enamel. You can't cut it with an ax. Lid fits closely into a grooved edge on the bottom half. Hinges are on inside. It locks with an individual key and just fits your coat pocket. Size 11 in. long, 5 in. wide by 2 in. deep. It insures Safety and Saves Time and Worry. You should not let your papers go unprotected another minute. Send for the box at once.



Our FREE Steel Document Box Offer

Send us 75 cents and we will extend your subscription six months to Colman's Rural World, and also send you a great big weekly paper for a full year, called "Our Country," which is the weekly edition of a famous daily paper, and we will forward immediately prepaid and Free the Steel Document Box shown above.

Fill in this Coupon and Mail Now For Free Document Box.

Address **COLMAN'S RURAL WORLD, St. Louis, Mo.**

COLMAN'S RURAL WORLD, St. Louis, Mo.

Gentlemen—Enclosed please find 75 cents, for which extend my subscription six months to Colman's Rural World, and send me "Our Country" one full year, and the Steel Document Box, prepaid.

Name

St. No. P. O. Box

R. F. D.

Town

State

"INVINCIBLE, UNSURPASSABLE, WITHOUT A PEER"

Write a regular subscriber, who has read it for many years, of the **TWICE-A-WEEK** issue of the

St. Louis Globe-Democrat

TWO ONE-DOLLAR PAPERS ONE YEAR FOR ONLY \$1.

and this is the unanimous verdict of its more than a half million readers. It is **BEYOND ALL COMPARISON**, the largest and cheapest national news and family journal published in America. It is **STRICTLY REPUBLICAN** in position, but is above all a **NEWSPAPER**, and gives **ALL THE NEWS PROMPTLY, accurately and impartially**. It is **INDISPENSABLE** to the Farmer, Merchant or Professional Man who desires to keep thoroughly posted, but has not the time to read a large daily paper, while its great variety of well-selected reading matter makes it

an **INVALUABLE HOME AND FAMILY PAPER.**

Two Papers Every Week.

Eight Pages each Tuesday and Friday.

Sample Copies Free.

GLOBE PRINTING CO.
ST. LOUIS, MO.

RURAL WORLD and GLOBE-DEMOCRAT \$1.00 NEW

Milking By Machinery

Saves Time and That Means Money---Uses and Abuses of the Apparatus.

By Clement White, Kansas.

MILKING cows by machinery is superior in every respect to milking by hand. The milk cow has never considered that it was any great treat to be milked by hand. The calf could do the job of extracting the milk much quicker and easier. If the calf got fractions and bit too hard, the cow could take steps to quench its excess of spirits. But when the farmer is milking and squeezes too hard the cow has no redress. If she kicks the bucket over, the farmer will probably declare war and with milk stool, pitch fork, etc., carry operations wherever the enemy attempts to move. Milking by hand is a system which should be suspended by the mechanical milker. We have known cases where the farmer's interest in the dairy business languished abruptly, and a live stock sale was advertised, simply because the labor of "pailing" the cows by hand was too excessive, when compared with the profits of the dairy business. One consideration of the mechanical milker which should be taken into account, and not the smallest by any means, is its sanitary features. Another important consideration is the ease with which the milk is extracted. The mechanical milker removes the milk from the udder much the same as the well behaved calf does. The old cow remains in a good humor and does not attempt to "hold" her milk. When the farmer milks by hand, and is not overly gentle, the old cow often "holds" the greater part of the milk. This is apt to result in a decrease in the cow's regular flow of milk, and naturally the farmer's profits will suffer.

Follow Directions.

If the greatest measure of service is expected from the use of the mechanical milker, the machine must be used intelligently. Directions accompany the machine; follow the directions carefully, then you will bless the machine instead of addressing it rudely. Watch the amount of vacuum carefully. Use the number of inches of vacuum which the directions accompany the machine advise. It is important that the cows be studied carefully until the speed of the pulsator can be regulated in accordance with the kind of cows. The cow that has short teats and is an easy milker will permit a higher speed of the pulsator than the cow that milks hard and has large teats. Remember and make all adjustments with extreme care. A wrongly adjusted pulsator, or an increase or decrease of vacuum may cause failure.

The man of experience, who has milked all kinds of cows by hand, knows that some cows give their milk down faster than others. Each cow can give her milk just so fast. Now if the machine attempts to take the milk faster than the cow can release it, the cow will become "cranky" and "balk." When starting out with a new milker, adjust it so it removes the milk slowly at first. Later on you can adjust it more nearly to the cow's characteristics.

It is no small task to become familiar with the operation of the mechanical milker. Practice makes perfect, and the earnest dairyman will begin to solve the problems of the correct operation of the machine as soon as he understands the way it works.

The abuses of the milking machine have given it a bad reputation in some localities. The man of inexperience, who is rather impatient by nature, may think he should be able to master the machine at the start. Then, after he makes a failure because of his inexperience, he probably will arise and express his opinion of such "devilish" contraptions in no uncertain words.

How Machines Are Abused.

Concerning the abuse of the milking machine, this much may be said. The cows should be properly housed. When the animals are exposed to cold the skin covering their teats

curls up and contracts. When the dairyman attaches the mechanical milker to teats in this condition the teat cups do not get the proper grip. When the cows have been exposed to cold, do not attempt to attach the milker until the teats have been gotten in the right condition. A gentle massage of the teats will cause a circulation of the blood, then the contracted skin will resume its normal texture and shape. The cows that have been exposed to cold are nervous and sensitive. Their whole nervous system, as one irate farmer expressed it, is "twanging." When a cow is in this condition her muscles contract easily. Naturally the network of tiny muscles which guard each little milk duct in her udder contract and hold the milk instead of releasing and allowing it to flow freely. The fact is that the cow is not in a normal condition, and until she regains her normal condition the business of extracting the milk with the mechanical milker had better be delayed.

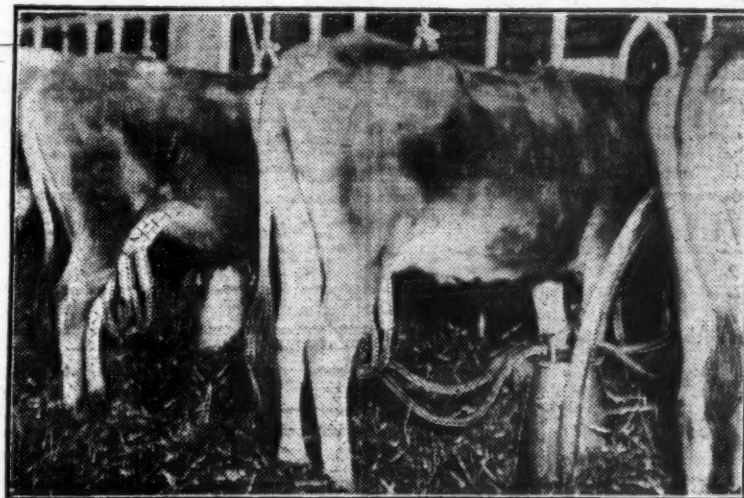
The cold barn is another abuse of the milking machine. When the barn is unusually cold, moisture will gather in the vacuum pipe; this is easily removed by draining the stop cocks; but prevention is better than a cure. The earnest dairyman has no use for a cold barn.

Cows Not All Alike.

The milking machine is abused occasionally because the new owner tries it on the wrong type of cows. The best cow in the herd is none too good for the initial test. The best cow in the herd—meaning by this statement the best producer—is generally the most quiet and docile. Her teats and udder are generally of normal proportions. The intelligent cow is quiet and will not become excited so easily as her nervous, wall-eyed companion.

If the operator starts operations by "hooking on" to a nervous cow, she quite probably will hold up her milk. If the operator thinks the machine should remove the milk in record time he will probably become disgusted at the first trial and begin to "adjust." The adjustments are merely one form of abusing the machine; for there is not one chance in a hundred that the angry amateur will adjust the delicate mechanism correctly.

The man who intends to get the full



A Milking Machine Largely Does Away with the Greatest of All Drudgeries on Dairy Farms, Milking by Hand.

lest measure of service from the mechanical milker should grade his cows properly. Grading according to size and shape of the udders is one requisite. If the cows differ radically in regard to size and shape of teats and udder, the operator will have to stand by the milking machine constantly and make the needed adjustments of the teat cups. There is no machine manufactured to date (to the knowledge of the writer) which will handle all sizes and shapes of udders without correct adjustment of the teat cups.

We are giving considerable space to

the discussion of milking machine abuses; but the fact is the man who fails to get good service from a mechanical milker usually has himself to blame. He has failed to take the numerous factors, which make for success, into consideration. The mechanical milker is all right; the cows will cause the trouble. Nature has given us cows of all sizes, shapes and dispositions. If each cow was of exactly the same type in regard to build and shape, one milker, adjusted at the factory, would milk any cow. If the farmer or dairyman will use his best judgment, and learn a little as he goes along, he will have success with the mechanical milker.

After the machine has been regulated so that it gives satisfactory service, of what use is it? We can answer this question in a few words. The mechanical milker eliminates the most objectionable feature of the old-time dairy business; viz., the milking of the cows by hand. Time is saved, and time is the greatest of all considerations in the opinion of all dairy-men.

FACTS AND FIGURES THAT SHOW VALUE OF SILO.

Mr. M. L. Masher, county agent, Clinton county, Iowa, has gathered in-

Buy The Mitchell

35 h.p. Touring Car With Starter, Electric Lights, Tire Pump, Fully Equipped.
P. O. Box Factory: \$1250
Wabash Imp. & Auto Co., 1900 Locust, St. Louis. 8 phone
or Only four blocks North of Union Station.



GERMAN SILVER MESH BAG FREE

Oxidized frame, prettily enameled with handsome floral design; 18-inch chain. Mesh Bags are all the rage. Very handsome. Given free for selling 10 large art and religious pictures at 10c each. We trust you with pictures until sold, and give 40 beautiful postcards as a extra gift for promptness. Send name. A postcard will do. People's Supply Co. Dept. R. 716 Locust Ave., St. Louis

Value of corn at 60c per bushel and \$1 per acre stalks.....\$343.89
Labor \$2.00 per day for men, \$2.00 per day for teams... 42.50
Use of binder, engine and cutter and men to run them..... 36.76
Interest, taxes and depreciation, 10 per cent of cost..... 34.18

Total cost of silage for each silo.....\$457.35
Average tons capacity of silo... 94.56
Average tons loss from moulding (mostly on top)..... 1.94
Average cost of good silage per ton..... 4.94
Average value of feed saved by silo..... 817.83
above 60c per bushel when fed
Average profit for each silo.... 360.48
Average profit on each acre to fat cattle..... 30.39
Milch cows..... 25.63
Stockers..... 29.00

Fat Milch Stock Cattle, Cows, Cattle.

	11	23	22
Number of herds reported.....	11	23	22
Average number per herd.....	30	14	25.6
Average number days fed silage. 103.....	103	152	143.6
Average tons silage per herd.....	37.8	48.32	38.37

Conclusions.

- 1.-A silo will pay for itself in a very short time.
 2. Men who use silage are enthusiastic over its value for all kinds of cattle.
 3. Men who have silos can feed or milk at a profit when prices are so low that other men are working for nothing, and can secure a splendid profit when prices are good.
- Coming as this does from one whose interests are in farmers rather than selling material or machinery it is dependable and worthy of every farmer's thought.

In case of rosy milk, look to the water supply.

HORSE BREEDING AND RAISING

PECUMIARITIES IN INDIVIDUALS AND IN FAMILIES.

Editor, Rural World:—If we are breeding harness race horses, it would seem as if any one should take them and drive them to fast records, at the gaits in which they are developed. Few men, in Missouri, were ever so successful as was Bob Harriman with Gyp Walnut and Miss Fullerton, yet he absolutely refused to try to drive a stallion, in a race for some cause, he said, he could not put himself in sympathy with an unsexed horse.

Charley B., 2:25, by Champion 807, by Champion, sire of Abdallah 1, was 10 years of age when he trotted in 2:25. His dam, Old Jane, by Magnum Bonum, produced a sister that took a record of 2:25½ the same year that Charley B. trotted in 2:25. She trotted 10 winning heats in 2:30 or better and Charley B., six. So, no one would question their being trotting race horses back in 1879; yet, a challenge stood for years to pull Charley B., 2:25, against any draft horse in the world, weight nor breed no bar, and there were no takers.

The family founded by Justin Morgan was all horses of wonderful will power. As he was seldom or never compelled to lower his colors in any kind of a pulling contest, he was a demonstration that weight was more than offset by his wonderful power of will.

I was fortunate in seeing the first imported Norman brought to this country, Louis Napoleon, unhitched from a wagon with both hind wheels blocked, and a little 900-pound Morgan mare put in his place. She pulled it as he never could have got up the will to try. In a long sweeping circle she stopped where she started. This was on the Marion County fair ground at Salem, Ill.

When railroads were scarce, and travel mostly by stage coach or canal boat, I have seen four Morgans cross the Alleghany mountains with a human load that would have puzzled an ordinary draft team to move. Stage work in those days without the Morgan horse would have been a trying proposition.

If we are successful in developing at Ft. Collins, Colo., the greatest breed of heavy harness, carriage or coach horses in the world, we shall owe much of it to Trojana, by Trojan, dam of Monitor, sire of the dam of Carmen (the first stallion in use at the station), Wilmering, 2:12½, with his double cross of Onward, his first dam being by a son of Onward and his second dam by a grandson that was out of a daughter of the dam of the sire of Carmen's dam. We get speed and weight that must be invincible. Both Onward and Monitor could trot a mile better than 2:20, led by a runner with a loose halter line.

When Tom Ervin was driving that great three-year-old mare, Mildred Togo (3), 2:16½, he told me, "drive her a couple of stiff slow miles and turn her in the barn for a few minutes, and she will come out ready to race for a man's life. Keep her in the harness, and she won't try." When they paid \$3,000 for her for the great Canadian stable, they were going to put her in the 2:10 list at Phoenix, Arizona. I have never seen where she has started under the new management.

When John Chapman, the harness man of Sarcoxie, Mo., was driving Edward B., by Blue Bull 75, he said he had noticed the Blue Bull's, as a family, were short in the stifle, and were gluttons to eat. "I had it my own way. I could win if I wanted to, and if there was more money to me to lose, I pulled off his muzzle. I nor no one else could drive him near his racing clip if he had filled himself with his bedding before coming

on the track. That was safer than to try to pull or rate him." Much of the cry that has gone up about the Blue Bulls quitting has been the want of observation and discrimination on the part of the driver and conditioner.

One of, if not the very best son of Baron Wilkes was Royal Baron, 2:10¼; dam, Daisy Blackwood, 2:29¼, by Blue Bull 75, and the very best daughter of Greenlander, by Princess, was Daisy Greenlander, out of the same mare, Daisy Blackwood, 2:29¼, by Blue Bull 75.

Tom Ervin could have driven Mildred Togo, as a three-year-old in better than 2:10. She had speed for 2:06. They did not pay \$3,000 for her to tie up in the barn; but, to have shown the world what a great mare she was, they needed to take Tom Ervin, the man who made and understood her, and she would have been ready to do her part.

All or nearly all families of horses have their peculiarities, and the man who does not love them, and study these characteristics will be left behind.—L. E. Clement, Pierce City, Mo.

THE PIT SILO USEFUL IN SOME LOCALITIES.

In localities where there is no danger of water seeping into the silo, probably the pit silo can be considered as a very economical one to build. It should be easy to fill, easy to construct, cost little for material, will never blow down, and there is no danger of the silage freezing within it. It has, however, the disadvantage of not being an artistic building, is apt to have stock drop into it, and unless caution is exercised when being filled, poisonous gases are apt to collect within its walls, which are dangerous to men; and it also is a silo which furnishes some difficulty when removing silage.

Pit silos have been erected in Nebraska with prices ranging from \$15 to \$100 for material, depending upon the locality, the size and the conveniences connected with the silo.

The typical aboveground silo is built up, while the pit silo is built down. The first operation in building a silo of this type is to lay out, excavate and make a border of concrete. This border should not be less than eight inches wide and three feet deep. In silos which are apt to cave, the border should be deeper. The concrete used in this border should be made of the standard proportions for barn and house foundations which are used in the vicinity. It is well, however, to reinforce the border with two or three layers of woven wire fencing, as this will make it sufficiently strong so that if it is desired to make the silo larger a section can be built above ground.

When the border has been completed, go inside and excavate to a depth of about six feet. The walls should then be plastered with cement. This cement should range from three-quarters of an inch to two inches thick, depending entirely upon the kind of soil. A sandy soil requires a much thicker wall than a wind formation of soil.

After this section has been plastered, excavation should continue for a section of six feet; this section should then be plastered, continuing with other sections of excavation and plastering until the silo has reached the proper depth.

There are several methods used for hoisting the earth while excavating and for lowering the material for walls. Probably the simplest type is to erect a tripod, use a hay carrier, track, and car for a hoisting track. The simplest type of bucket used on this hoist is that of the barrel. This is an ordinary kerosene barrel with the upper six inches cut off and a hole bored through both sides about six inches below the center for supporting a 1¼-inch or 1½-inch gas pipe. A chain is attached to each end of this pipe which makes the bail. Near the top of the barrel and just over the piece of pipe, holes are bored to receive a wagon rod. This wagon rod is pushed through the holes with one chain on one side and the other chain on the other side.

When the pail is filled with dirt and has been hoisted ready for dumping, the wagon rod is taken out and the pail dumps itself.

CATTLE FOR BEEF AND FOR MILK

KNOW YOUR COWS, DON'T GUESS.

When any new idea or change of method is suggested in connection with farm operations the practical owner enquires at once "does it pay?" Before deciding to commence under-draining that swampy corner, or renovating that old orchard we apply the test of figures. Before increasing the number of chickens kept, or determining to go more deeply into hog raising there is more figures as to probable profits.

Has the lead pencil been used just as often in connection with the respective merits of the various cows in the stable, and has any system of calculation of profit year by year from each cow ever been instituted? An honest confession would show a lot of very unsatisfactory guess work in connection with cows, while just a few minutes interesting use of the pencil would open the eyes of many a farmer to the remarkable difference in yields from cows thought to be just about equally valuable. Would it not be wise to admit gracefully that even the experienced have a lot to learn about cows, and that each separate individual will repay a study of her preferences and possibilities?

HIGH-PRODUCING JERSEYS.

We had on authenticated test in March 37 head—27 two-year-olds, six

three-year-olds, one four-year-old, and four mature cows. Some were just fresh and others in milk 11 months. Their yields of butter fat show that one made over 70 pounds, five over 60 pounds, seven over 50 pounds, 16 over 40 pounds, four over 30 pounds, four over 20 pounds. The 37 head produced 31086.6 pounds milk, 2080.07 pounds 85 per cent butter, an average of 840.2 pounds milk, 56.3 pounds butter.

We consider this exceptional work for a herd, especially with 73 per cent of them are two-year-olds. These cows show the wisdom of breeding one family for a definite purpose, with the constant aim of improving each generation.—Hood Farm, Lowell, Mass.

Do not give the cows dusty feed, such as hay or grain, within two hours of milking time.

\$14 Buys A Banner Hay Rake, all steel, 8 ft., hand-dump; a few left. Weber Imp. & Auto Co., 1900 Locust St., St. Louis

HEISKELL'S
One application soothes and heals a rough pimply skin, and, when repeated, quickly effects a cure. Eczema, Erysipelas, Tetter, Ulcers and all skin diseases yield to its curative properties. 50c. a box. At all Druggists. Send for free sample and book. "Health and Beauty." JOHNSTON, HOLLOWAY & CO., 1723 Spring Garden St., Phila., Pa.

OINTMENT

LOCKET AND RING FREE
Gold plated Locket, 22-inch Chain. Set with 8 beautiful brilliants. Handsome. Free for selling only large arched religious pictures. Each. Gold filled Ring, set with 4 brilliants given for promptness. We trust you with pictures will send, and give an extra gift for promptness. Send name today. People's Supply Co., Dept. 9716 Lucas Ave., St. Louis

NEARLY FREE THIS BIG 3½ FOOT TELESCOPE with Patented Solar Eye Piece

Here's a bargain. Never before has it been possible to obtain a Multi-focal telescope with solar eyepiece attachment for less than \$10 to \$100. But because we have made special arrangements with the inventors, and pay no patent royalties, and have them made in tremendous quantities by a large manufacturer in Europe with cheap labor, we are enabled to give you this outfit, provided you will send us \$1.00 to pay for a one year, new or renewal subscription to COLMAN'S RURAL WORLD and 35 cents extra to help pay mailing and packing charges on the telescope outfit (total \$1.35). Think of it—the solar eye-piece alone is worth more than that amount in the pleasure it gives—seeing the sun spots as they appear, and inspecting solar eclipses.

The Excelsior Multi-focal Telescope has a multiplicity of uses—its pleasure is never dimmed—each day discovers some new delight. Distinguish faces blocks away. Read signs invisible to the naked eye. Use it in cases of emergency. Take the Excelsior Multi-focal Telescope with you on pleasure and vacation trips, and you can take in all the scenery at a glance—ships miles out; mountains encircled by vapors; bathers in the surf; tourists climbing up the winding paths.

Used as a microscope it is found of infinite value in discovering microbes and germs in plants and seeds, etc. The Excelsior Multi-focal Telescope is mechanically correct—brass-bound, brass safety cap to exclude dust. Powerful lenses, scientifically grounded and adjusted. Handy to carry—will go in pocket when closed, but when opened is over 3½ feet long. Circumference, 5¼ inches. Herefore telescopes of this size, with solar eyepiece and multi-focal lenses, have sold for \$1 to \$10, or even more. We do not claim our telescope is as nice, and expensive in every particular of construction as a \$10 telescope should be; that would be unreasonable; but it is a positive wonder for the price. Each telescope is provided with 3 interchangeable objective lenses—one for ordinary range and hazy atmosphere, the other for extra long range in clear atmosphere, increasing the power and utility of Telescope about 50 per cent.

COULD COUNT CATTLE NEARLY 40 MILES AWAY
F. S. Patton, Arkansas City, Kansas, writes: "Can count cattle nearly 40 miles; can see large ranch 17 miles east, and can tell colors and count windows in house."

SAW AN ECLIPSE OF SUN
L. S. Henry, The Bronx, New York, writes: "Your solar eyepiece is a great thing. I witnessed the eclipse at the Austrian Tyrol when the sun was almost 80 per cent concealed."

COULD SEE SUN SPOTS
Rutland, Vt., Feb. 16, 1910.—Telescope arrived O. K. I have seen the spots on the sun for the first time in my life.—Dan G. Safford.

LIMITED OFFER
Send us \$1.00 to pay for a one year extension on your subscription to COLMAN'S RURAL WORLD, and 35 cents extra to help pay mailing and packing charges on the complete telescope outfit, which will be sent postpaid (total amount to remit, \$1.35). Absolute guarantee of satisfaction or money refunded. DO IT NOW.

COLMAN'S RURAL WORLD
718 LUCAS AVE., ST. LOUIS, MO.



CREAM OF THE DAIRY NEWS

METHOD OF OPERATION OF COW TESTING ASSOCIATION.

"The co-operative cow testing association is founded on the principle that a number of dairymen who are situated near each other in a given community can organize and employ a man to do their testing cheaper and more satisfactory than they can do it themselves," says Mr. W. W. Yapp of the Illinois Agricultural College in an article just published. "The most convenient association to operate is one composed of 26 members. This number permits the tester to spend one day each month at each place without having to work Sundays or holidays. In some associations the tester furnishes his own horse and buggy and drives from place to place; in others, each farmer takes him to the next testing place.

Duties of the Tester.

"The tester, supplied with an outfit arrives at the home of the dairyman in the afternoon, weighs and takes a proportionate sample of the milk of each cow separately, and weighs the feed which she consumes. In the morning he repeats these operations. The samples from the evening and morning milkings are put together to form composite samples which are tested for butterfat. To

ance, the university loans to each community which organizes in this way a testing outfit and furnishes the necessary blanks, asking in return a copy of all the records of the association. In order that any community may secure the co-operation of the university, the dairymen need merely apply to the Department of Dairy Husbandry, Urbana."

Similar assistance is offered by the agricultural colleges of most other states. Write to the nearest one for information.

PREMIER PERFORMERS AT THE PAIL.

(Continued on Page 9.)

gen Fayne has been announced. Murne Cowan holds only second place, but remains the championship in her breed. She is owned by O. C. Barber, Anna Dean Farm, Barberton, Ohio, and her record is 24,008 pounds of milk, containing 1,098.18 pounds of butterfat, equivalent to 1,373.35 pounds of butter on the 80 per cent basis. Her largest milk yield in 24 hours was 82.3 pounds. In seven days she produced 565.8 pounds of milk containing 24.44 pounds of fat and in one month she produced 2361.5 pounds of milk and 102.02 pounds of fat.

The test was supervised by the dairy department of the Ohio State University. In addition to the tests made each month by the department, she was tested by representatives of eight different state agricultural colleges and by the American Guernsey Cattle Club.

She produced an average of \$3 worth of milk each day at a retail price of 10 cents a quart, which in 365 days would amount to \$1,095. Her feed expense was 53.9 cents daily. The labor expense was figured at 40 cents



Neighboring the Farmer

One of the most significant facts of our telephone progress is that one-fourth of the 9,000,000 telephones in the Bell System are rural.

In the days when the telephone was merely a "city convenience," the farms of the country were so many separated units, far removed from the centers of population, and isolated by distance and lack of facilities for communication.

But, as the telephone reached out beyond cities and towns, it completely transformed farm life. It created new rural neighborhoods here, there and everywhere.

Stretching to the farthest corners of the states, it brought the remotest villages and isolated places into direct contact with the larger communities.

Today, the American farmer enjoys the same facilities for instant,

direct communication as the city dweller. Though distances between farms are reckoned in miles as the crow flies, the telephone brings every one as close as next door. Though it be half a day's journey to the village, the farmer is but a telephone call away.

Aside from its neighborhood value, the telephone keeps the farmer in touch with the city and abreast of the times.

The Bell System has always recognized rural telephone development as an essential factor of Universal Service. It has co-operated with the farmer to achieve this aim.

The result is that the Bell System reaches more places than there are post offices and includes as many rural telephones as there are telephones of all kinds in Great Britain, France and Germany combined.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy

One System

Universal Service

The Champion Jersey.

Sophie 19th of Hood Farm, on account of her repeated records as a producer, has been in the public eye for four years, and has retained a place amongst the Jersey pace-makers until now, when she takes the lead with a record that surpasses her Jersey competitors, and many rivals in other breeds as well. In an authenticated year's test finished January 20, 1914, she being then nine years old, Sophie 19th achieved the following great record: Milk, 17,557 pounds 12 ounces, (over 22 quarts per day); butter-fat, 999 pounds 2.2 ounces; estimated butter 80 per cent fat, 1,246 pounds 3 ounces (over 3 pounds 6 ounces per day for 365 consecutive days). This test was supervised by the Massachusetts Agricultural Station, whose representatives tested 138 different samples of her milk during the year.

Sophie 19th of Hood Farm was bred by J. E. Doane, Thompson, Conn., dropped Jan. 24, 1905, was sold to Hood Farm, Lowell, Mass., as a heifer, April 10, 1905, and was developed and tested at Hood Farm. Her sire was Fort Hill Farm Chief, bred at Hood Farm; her dam, Phil's Scituate.

The next best performing Jersey is Springfield Owl's Eva, with 1,241 pounds, 8 ounces of butter from 16,457 pounds 6.4 ounces of milk.

The Champion Ayrshire.

The champion Ayrshire cow is Auchinbrain Brown Kate 4th, owned by Percival Roberts, Jr., Marberth, Pennsylvania. Her official record is 23,022 pounds of milk, containing 917.6 pounds of butterfat, equivalent

Let The Little Devil

Oil Tractor do your Horse Work and Gas Engine Work on the Farm. See it here, or write for full particulars. Address: Weber Imp. & Auto Co., 1900 Locust St., St. Louis. Only four blocks North of Union Station.



FREE To every Boy and Girl. We give a fine Camera and complete outfit plates, chemicals etc., with full instructions. Just send your name and address, we send you 20 large art and religious pictures to sell at 10c each. When sold send \$2.00 and the camera and outfit is yours. We give 40 beautiful postcards extra for promptness; also a surprise gift extra for promptness. People's Supply Co., Dept. NW 716 Lucas Ave. St. Louis Mo.

to 1,147 pounds of butter, on the 80 per cent basis. This breed had until recently the world's two-year-old champion in Castlemain's Nancy 4th.

The foregoing information regarding the Ayrshire champion cow is all that the Rural World had at its disposal when going to press, but its sparseness is not intended to reflect on the relative worth of the breed. The hardy and beautiful Ayrshire is one of the most popular of all dairy breeds. In a later issue something will be told about the Brown Swiss, the Dutch Belted and the dairy performances of leading Red Polls and milking Shorthorns.

Do you milk by lamplight? Make sure that the lantern will not be upset or otherwise disturbed. Some are pretty careless about this, setting the lantern on the floor. It is always risky. A dog or a cat may run against it, or a cow may unexpectedly get against it. No better way than to hang it up on a strong hook.



An Official Cow Tester with His Apparatus is a Necessary Factor in the Success of Most Dairy Sections.

and the production for the month the tester multiplies his results for the day by the number of days in the month. The yearly production is the sum of 12 monthly credits. In addition to the duties named in his contract, the tester is expected to concern himself with the welfare of the dairy interests of the community in which he works. He should be qualified and willing to assist the farmer in such problems as the balancing of rations and the planning of improvements.

Organize An Association.

"In 1910, when the first associations were organized in Illinois, it was found necessary to organize them on the dollar per cow per year basis, the university making up the deficit necessary to employ a good man as tester. As the associations became more numerous it was found necessary to organize them on a self-supporting basis. In 1914 this was done and all of the associations were placed on the dollar and a half per cow per year basis. Although the university does not render financial aid to cow testing associations, it will send out a representative to any community in Illinois, which shows sufficient interest, to assist in organization. In addition to this assist-

daily and the stall rent at \$65 a year, making a total of \$407.73. This leaves a clear profit of \$687.26, to say nothing of the calf which will sell at a fabulous price.

Murne Cowan weighs 1,320 pounds and is in splendid health and condition. To all appearances the making of this record has not injured her in the least. She now carries at least 100 pounds more flesh than she did when her record was begun.

Sweet Maria 25151, a daughter of Murne Cowan, has an A. R. record of 12,542.5 pounds of milk and 682.86 pounds of fat. Her record was started when just three years old.

The cow, together with her young bull calf, her daughter, Sweet Maria, and six other heifers were purchased for \$1,100. Shortly after this lot reached the farm, the cow was started in the A. R. test, and in the following 365 days she produced 16,729.3 pounds of milk and 845.41 pounds of fat. Her last calf, a bull, is now a large, thrifty and vigorous youngster.

Her record was completed on February 17, 1915, on which day she produced 56.3 pounds of milk. Prior to Murne Cowan's record, the world's championship for butter production was held by May Rilma, a Guernsey.

SHEEP & SWINE FOR MOST MONEY

A PIT SILO UNDER COVER.

We have a pit silo and small barn in connection with it. We first marked off a circle 14 feet in diameter and then dug a trench and placed forms for a curb five inches thick and three feet high around this circle, reinforced with hog wire fencing. When the concrete was well set we began to dig the ground out inside the curb. We dug down five feet then plastered down and so on to the bottom, putting on two coats of cement about three-quarters of an inch thick. In this way we didn't need any platform. We went only 18 feet deep but can go deeper when needed as we did not plaster the bottom. In taking the dirt out we used a derrick with rope and pulleys and raised the dirt with a team.

The barn was built partly over the silo to economize in building material and besides furnishing a roof for the silo, it makes a good place to store dry feed. In making and filling this silo we were only out about \$25 in cash. Of course, we figured nothing for our work and we exchanged work in filling. The cement cost only \$9.

We put corn stalks without any corn on them in the silo, cutting them into one-half inch lengths. This silage kept fine, only a little on top and around the sides spoiling. The cattle would hardly touch the same kind of fodder put up dry.—George B. Shields, Kansas.

BUILDS SILO AT LITTLE COST.

E. L. Dean, demonstration agent for Bradley Tenn., furnishes the following figures on the cost of a silo erected by Mr. J. W. Richardson at Warren. Mr. Richardson purchased all of the material from local parties. The staves are of heart pine, 2x6, tongued and grooved. The hoops were bought at a local hardware store and fitted with nuts by a local blacksmith. The size of the silo is 12x24 feet and the cost items are:

Heart pine staves.....	\$32.00
Ten 1/2-inch iron hoops.....	15.00
Cement for foundation.....	4.00
Asphalt for foundation.....	3.00
Construction per contract.....	30.00

Total\$84.00

Mr. Dean states that with a coat of paint or creosote this silo will be as good and as durable as any wood silo in the country.

AVOID SILO-FILLING ACCIDENTS.

By observing three simple rules, the farmer who is using silo filling machinery for the first time may avoid some of the accidents which occasionally damage new machines beyond repair, according to W. E. Markey of the Wisconsin experiment station:

1. Be sure that the machine is being run at the proper speed.
2. Take care that corn is never put into the machine until the motion is up to full speed.
3. In stopping be careful not to shut off the power until the elevator is empty.

If the elevator is not empty the cut material will fall back and lodge in the fans. Then when the machine is started again, the cut corn jams the fans and as a result they are bent or broken.

CO-OPERATION FOR WOOL GROWERS—HANDLING THE CLIP.

The wool grower has under the present system no way of ascertaining whether or not the manufacturer is satisfied with his product. In consequence, improper methods of preparing the wool for shipment cost him from 1 to 3 cents a pound, for the manufacturer is frequently put to an extra expense, against which, of

course, he protects himself by lowering the price to the grower. The grower does not often sell direct to the manufacturer, does not thoroughly understand the various processes through which the wool passes after leaving his hands, and remains ignorant therefore of the need for improvement in his methods.

To remedy this condition, some form of co-operation among wool growers in any given region is urged in a new publication of the U. S. Department of Agriculture, Bulletin 206, "The Wool Grower and the Wool Trade." The individual alone can do little to improve matters, for his clip is likely to be too small to induce the buyers to make any alteration in their accustomed methods of estimating wool values. With co-operation, however, it should be possible to prepare the entire clip of any section so that the reputation of its wool would be enhanced and the growers obtain the full market value of their product. A sufficient number of wool growers should be included in each co-operative association to enable at least 4,000 or 5,000 pounds of each of the various grades to be marketed at one time.

Handle the Clip Properly.

Co-operation will, of course, do little good, however, unless the individual growers follow improved methods of handling the clip. An instance of the present low price of American wool as compared with foreign is given in the bulletin already mentioned. Two lots of wool of the same grade, one of them from Idaho and the other from Australia, were purchased by a Philadelphia manufacturer—the American at 18 1/2 cents a pound and the foreign one at 23 cents a pound, before scouring. In the American fleece the kind of wool that this manufacturer really wanted amounted to 86.79 per cent of the total; in the foreign fleece to 98.96 per cent. A more accurate system of grading had given this manufacturer 12 per cent more of what he wanted than the American methods. In consequence the foreign sheep grower got the larger price for his fleece. The manufacturer paid for the imported wool, 23 cents a pound and for the domestic wool 18 1/2 cents a pound—a difference of 4 1/2 cents. By the time shrinkage, "off sorts," etc., had been deducted, however, the cost per clean pound to the manufacturer of the wool he wanted was 41.32 cents for the American fleece and 44.69 cents for the imported—a difference of only 3.37 cents. It may have cost the foreign grower a little more to prepare his fleece, but he more than recovered this in the higher price he sold it for.

If American growers were in a position to understand a little better the needs of the manufacturer and the reasons for his preference for properly graded and packed fleeces, they would unquestionably be much more willing to alter their methods. The bulletin of the department of agriculture already mentioned gives in considerable detail much information on these points. It also suggests 15 rules for the wool grower which, it is said, no one can afford to neglect if he is at all solicitous of the reputation of his clip. These rules are:

General Rules.

1. Adhere to a settled policy of breeding the type of sheep suitable to the locality.
2. Sack lambs, ewes, wethers, and all buck, or very oily fleeces separately. If the bucks or part of the ewes or wethers have wool of widely different kind from the remainder of the flock, shear such separately and put the wool in separate sacks so marked.
3. Shear all Black sheep at one time, preferably last, and put the wool in separate sacks.
4. Remove and sack separately all tags, and then allow no tag discount upon the clip as a whole.
5. Have slatted floors in the holding pens.
6. Use a smooth, light, and hard glazed (preferably paper) twine.
7. Securely knot the string on each fleece.
8. Turn sacks wrong side out and shake well before filling.
9. Keep wool dry at all times.
10. Make the brands on the sheep as small as possible and use a branding material that will scour out.
11. Know the grade and value of your wool and price it accordingly.

12. Do not sweat sheep excessively before shearing.

13. Keep the corral sweepings out of the wool.

14. Do not sell the wool before it is grown.

15. When all these rules are followed place your personal brand or your name upon the bags or bales.

The hog has been the most profitable live stock on the farm for the past ten years. It looks like the same proposition for the next ten years.

It never pays to starve the pig. Some who believe that they are saving money by cutting down the feed make a sad mistake. At the same time the hog must not be over-fed. It is worse than under-feeding. Fed just right is what is wanted.

Worms in hogs seems to be a very

BIGGER HOG PROFITS

Free Circular



For a year per hog keeps hog free from lice, scurvy, mange. Rapidly take on fat—bigger profits for you.

"STAR" HOG OILER is most practical, economical, cheap, long lasting device known. Gets to the hog with proper plan. No work for you. Works automatically—as you. Pays for itself quickly.

Standard Chemical Mfg. Co. Dept. 16 Omaha, Neb.

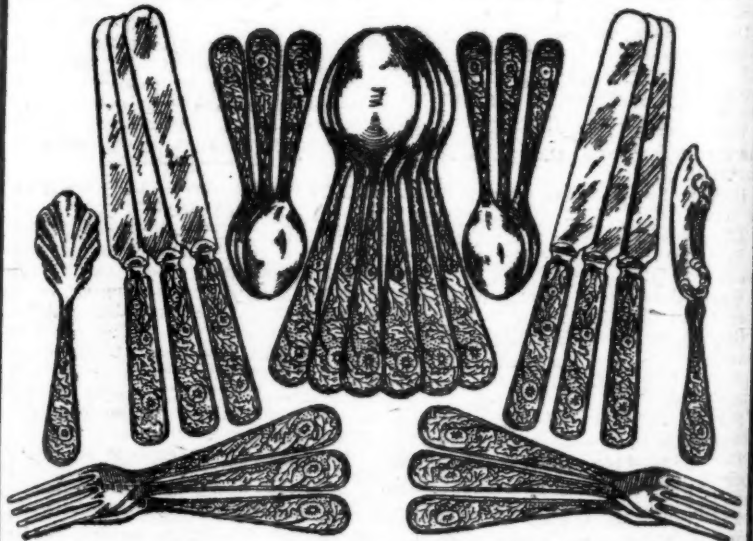
Starbuck Mfg. Co. Dept. 16 Peoria, Ill.

small thing compared with getting rid of them. The remedies that are sold, satisfactorily doing the work, are pretty safe to rely on.

FREE SILVERWARE

We have just received a fresh shipment of these beautiful 26-piece Electric Silver Sets from the factory. They won't last long. Send for your set today. We refund your money if you are not satisfied.

26-Piece Electric Silver Set



We Want You to Have a Set of This Silverware

We have in the past made many fine premium offers of silverware to readers of Colman's Rural World, but this is the first time we have ever been able to offer a complete electric silver set on such a liberal offer. And please don't think because we are giving away this splendid set on such liberal terms that it is the ordinary cheap silverware which is plated on a brass base and consequently changes color and has that "brassy" look just as soon as the plating wears off. This set which we offer you here is plated on a white metal base, therefore each and every piece is the same color all the way through and will wear for years. As shown in the above illustration there are 26 pieces in this set—4 Knives, 6 Forks, 6 Teaspoons, 6 Tablespoons, Sugar Shell and Butter Knife. Each piece is full regulation size for family use, the handles are handsomely embossed and decorated with the beautiful Daisy design which is now so popular and the blades of the knives and bowls of the teaspoons and tablespoons are perfectly plain and bright polished.

It is only because we buy this set in large quantities direct from the factory that we are able to secure it at a price that enables us to make the remarkable offer below. It is by far the greatest value we have ever offered. We will send this beautiful 26-Piece Electric Silver Set exactly as illustrated and described to any address upon the terms of the following special offer.

We have sent hundreds of these 26-Piece Electric Silver Sets to our readers, and in every case the subscriber has been delighted beyond measure. We are so sure that this 26-Piece Electric Silver Set will please and satisfy you that we make this offer,—and if you are dissatisfied after you get the 26-Piece Electric Silver Set, we will refund your money, or send you another set. You know we couldn't make such an offer unless this 26-Piece is exactly as we represent it.

How To Get This 26-Piece Silver Set Free

Send us a one year's new or renewal subscription to Colman's Rural World at our special price of \$1.00 and 25 cents extra to help pay postage and packing charges on the 26-piece Electric Silver Set—total \$1.25, and the complete 26-Piece Silver Set will be sent you by return mail—all charges paid. If you cannot get a new subscription to Colman's Rural World just send us \$1.25 and we will add a one year's subscription to your own subscription to Colman's Rural World. This offer may not appear again. Remember, for \$1.25 you get Colman's Rural World one year, and in addition we send you the 26-Piece Electric Silver Set—all charges prepaid. Sign the coupon below today before this offer is withdrawn.

Sign This Coupon Today

Colman's Rural World,
St. Louis, Mo.

Enclosed find \$1.25 to pay for a one year's subscription to Colman's Rural World. It is understood that you are to send me the 26-Piece Electric Silver Set—all charges to be prepaid. If I find the 26-Piece Electric Silver Set is not better than you claim, I will return it to you, and you are to send me back my money.

Name

P. O. State..... R. F. D.....

THE HOME CIRCLE

AND THE KITCHEN

TWILIGHT.

From out the dusk small shadows come,
Frail children of maternal night;
They play about the dim-lit room,
But always flee from brilliant light.

Night, with still footsteps hurries down,
To take these tiny shades away;
We seem to hear her softly croon,
While safe she hides them from the day.

And then, we almost see her face,
When wrapping them in silver mist;
She puts them in some quiet place,
And heeds their pleading to be kissed.

She bends o'er them her stately head,
Crown'd with a starry diadem,
And tucks them in their shadow bed—
Then, very softly, sings to them.
Missouri. —MAY MYRTLE.

THERE'S NOTHING LIKE TRYING EVEN IN EXAMINATIONS.

There were some queer answers in a recent examination of applicants for eighth grade diplomas in Polk county, Missouri:

Intensive farming is that which a farmer intends to do; extensive is that which is extended over a farm.

A specialized farm is best because a specialist examines the things on the farm.

Daniel Boon made watches.

Henry Clay made a dictionary.

Daniel Boon helped to establish Jamestown.

A primitive word is one not derived from any other word in the alphabet.

Telephones are an institution under the direct control of the United States government.

Dewitt Clinton wrote a dictionary—he died.

The United States protects Europe. Samuel Morse invented the telegraph operator.

Words form their plurals by adding d or ed to the singular.

George Dewey invented the sewing machine.

A diversified farm is one that is run down.

Simile means idle, and personification means to study.

Intensive farming means to farm your own land and extensive to farm rented land.

The people of Alaska have become more civilized now; some time ago they didn't have any school, now teachers go there to construct the people.

Intensive farming means farming all the year round; extensive farming means farming when you take a good notion.

A diversified farm is one that has not been tested.

Synonyms are as cow and calf.

George Washington fought in the civil war.

Lewis and Clark wrote the expedition.

The Home Circle is a meeting place for weekly gatherings of the Rural World family. All of its members are invited to meet here in correspondence and good fellowship. Send lots of letters and get really acquainted.

The Kitchen is a factor in the Home Circle that no one can do without. Help to make it helpful, by sending for publication suggestions on how to make and do the things that are made and done in the kitchen. Tell others your ideas and experiences.

tion against Lewisburg and saw it put into effect.

To be a good citizen a person should have respectable relatives.—Nettie Richmond, Missouri.

BIRDS AND FLOWERS.

To the Home Circle:—After reading Mrs. Menaugh's letter in the Rural World about her being deprived of hearing the songs of birds, I feel like sitting right down and telling about our lovely song birds here in the mountains. I don't know all the different names of the birds, but some of them are the nightingale, whippoorwill, blue, red and black birds, also mocking bird, cat bird, English sparrow, thrush, quail, humming bird, martins, wrens and there are several other kinds.

I haven't heard a nightingale this spring. I suppose it is most too early for them yet.

The birds are not the only attraction we have in the mountains. There are many kinds of wild plant life. The dog wood predominates. The trees are about as large as plum trees and are covered at present with large white flowers. They are scattered everywhere and look very pretty. There are three kinds of ferns, also three kinds of sweet williams, red, white and purple. We have our yard full of flowers, but we like the wild flowers, too.—Sarah L. Spears, Arkansas.

PASTEURIZE OWN MILK SUPPLY AT HOME.

Though the housewife is doubtless always careful of the family milk supply, yet with the coming of the warmer days she probably quickens her diligence in this matter. If there is the least question as to the cleanliness and healthfulness of the milk supply, and a better supply cannot be obtained, it can be pasteurized at home with little trouble.

Milk may be pasteurized in the bottles in which it is purchased, says a correspondence study course in home economics offered by the University of Wisconsin Extension division. Wash the mouth and outside of the bottle well; if the corks are removed use sterilized cotton stoppers. Place the bottles in a kettle or pail with a false perforated bottom, thus allowing free circulation of water. Fill the pail with water to the level of the milk. Heat to 14 degrees Fahrenheit, and keep at that temperature for a half hour, or at 167 degrees F. for fifteen minutes. Then cool quickly to 50 degrees F. or less. Keep cold.

Pasteurizing retards the souring of milk and cream, does not change the flavor, and though it does not insure the destruction of all the germs, most of them are doubtless killed.

PUBLIC SONG TESTS IN SCHOOLS.

Many towns and communities responded last year to the suggestion made by the board of administration to the Kansas state schools, that one day be set aside to sing the old-time songs and invite the public to a song feast.

"Out of every communal experience comes a new feeling of neighborliness, and a fresh appreciation of the things of the spirit," writes Mrs. Cora G. Lewis. "Too many community gatherings and too many city amusements are cheap and exclamatory."

"It is a good thing to sing the old songs that are a part of the national life, songs which bring a silence to the heart in which memory may recall quite precious things that have

been forgotten. Perhaps the singing will bring tears to the eyes, which falling will refresh some good impulse to live above the crowd, and leave the eyes clear for a fairer vision of living."

The students and faculty members of all state educational institutions may, with great pleasure and benefit to all concerned, gather with their friends for an "old song day" on any day of the year.

APPETIZERS IMPORTANT IN THE SPRING DIET.

Appetizers are an important part of the menu in the spring days when one is inclined to dally with food and the appetite needs coaxing. And the fresh vegetables with their abundant cellulose, furnishing a bulky diet instead of the more concentrated fare of winter days, are very welcome. But toning up is not the only need of the system in springtime. It is well for the housewife to know the tissue building and energy giving properties of the various foods she serves.

Dried peas and beans rank highest among the tissue building vegetables, according to a correspondence study course in home economics offered by the University of Wisconsin Extension division. Dried peas contain as much as 24 per cent of protein. Other heat and energy giving vegetables, cereals and fruits are: Sweet potatoes, lima beans, Irish potatoes, parsnips, peas, corn, squash, beets, carrots, turnips, rice, rye, meal, cornmeal, buckwheat flour, wheat flour, pearl barley, oatmeal, tapioca, hominy, macaroni, dates, raisins, figs, prunes, bananas, plums, grapes, huckleberries, pears and apples.

Short Cuts for the Housewife

1. When Re-papering and Painting.

By Nettie E. Maxwell, University of Wisconsin.

"It is not a light matter, the way we spend our time, our strength, our intelligence. The higher duties of womanhood, the higher evolution of humanity through her, of society through the household, demand a more healthful condition of household economics than this present shows. Our households are surcharged with waste matter, and our lives are spent in its arrangement and removal. Soul, mind and body are limited by the dust pan," says Helen Campbell.

At the time of house cleaning the wise woman weeds out the useless and worse than useless truck that litters the house, holds dust and causes needless work of dusting and arranging. It takes courage often to do away with things which are dear because of the giver, but one's time, strength and health are of much more moment than an assemblage of worthless bric-a-brac.

Bedrooms should be especially free from dust catching draperies and useless articles. When draperies are used they should be light and washable, and often washed.

For the housekeeper who has to economize (as a large majority of our housekeepers do, which makes life interesting) and who finds it necessary to repaper because the walls are faded, calomine may be used with good effect. It is very satisfactory even over cheap paper if it is firmly attached to the wall. If there are any loose portions they should be carefully pasted and dried before putting on the calomine. Put the calomine on the ceiling first, of course, to save spattering the side walls. A long stroke down the length of the paper makes a smoother finish than if put on with a side stroke. This is a saving of time as well as money and one need not tear up the house, as a careful worker will do no spattering. Cover a green paper with a green calomine and the walls will look fresh and new.

THE LETTER CARRIER.

How welcome is the letter man,
Who brings the mail each day,
Who brings all news that he can
From dear ones far away?

And from his sack what varied news
Does the carrier often take:
"Why! Jane's ran off with William's son,

And grandpa's married Kate!"
And though some news will often come,

Which makes the laughter roar,
There'll come the cheer and come the blues,

For some we'll see no more.
But think of letters 'way from home,
From a loving mother's heart,

When a boy's away and sad and lone,
And how the tears will start.
And many daughters distanced wide

Twixt new and former home,
No loving mother at her side,
Whose face had brightly shone.

But words of comfort yet may ring,
Its sweetness naught can mar,
For the carrier on his route will bring
Glad tidings from afar.

And the papers that are fresh and new
With things that's come to pass,
And the mind's enriched, broadened, too.

To learn doings of the past.
St. Louis. ALBERT E. VASSAR.

HOUSEHOLD HINTS.

After polishing the brass in the usual way, rub it over with a soft cloth dipped in vaseline, and then polish it with a dry duster. In this way, brass will not tarnish quickly, no matter how bad the weather may be, and the extra trouble is small.

To prevent lime from caking on the inside of a kettle, get an oyster shell, wash it thoroughly, and place it in the bottom of the kettle. The lime will be found to cake on the shell. Take it out frequently and scrub it off, then replace in the kettle again as before.

Usually one coat is sufficient to cover, but two may make a better finish.

In this day of rugs, which are easily removed, the floors need to be kept in good condition. An economical way when using a large rug in the center of the floor is to grain the floor a few feet around the edge, the only part which shows. This, if well done, will look nearly as well as a hardwood floor. Varnish the linoleum covered floor spring and fall to keep the colors bright and insure its wearing longer.

An easy way to keep the kitchen cupboards looking well is to paint the shelves spring and fall with a good white paint. If one cares to incur the expense, an enamel makes a fine hard finish which is easily wiped off. The shelves are then ready for the dishes without any paper or other covering. When the shelves get dusty, they are easily wiped off and the cupboard is always clear. A good method to use is to clean one shelf at a time when washing dishes, this will not be much of a burden and in this way they are always dustless and fresh looking.

In rooms that have only north light a paper with a good deal of yellow will add the desired sunlight color to the room. A paper should be tried in the room in which it is to be used, in both daylight and with artificial light. Some colors so absorb the light that a cheerful room at night is impossible. An oil cloth covering is good in the bathroom or the kitchen where a more expensive covering cannot be afforded. This can be wiped and cleaned as easily as a dish.

To remove paint spatters which have dried on windows, scrape with a penny.

The ancient habit of tearing up the entire house so that there was no place to sit or have one's meals in comfort has happily passed away. Unless extensive repairing is to be done there is no need to make the family uncomfortable, each cleaning season.

Big Sleeping Doll FREE



This fine sleeping doll is nearly two feet tall, and is all the rage. She has slippers, complete underwear, stockings, etc. Dress is very pretty made, half length, and trimmed with lace; also has a little chatelaine watch, with fleur-de-lis pin. You can dress and undress this doll just like a real baby. Has curly hair, pearly teeth, rosy cheeks, beautiful eyes, and goes to sleep just as natural as life when you lay her down.

This doll free for selling only 10 of our magnificent art and religious pictures at 10 cents each. We trust you with pictures until sold, and give an extra surprise gift for promptness—just your name.

PEOPLE'S SUPPLY CO., Dept. R. W., St. Louis, Mo.

Missouri In May-Time

MAY-TIME in Missouri—rich in duty and in beauty—the mystic month of the curious calendar of hopes and fears in the links of life throughout the year—such is May-time in Missouri, the historic home of happiness and hospitality.

May-days test and try both the souls and soles of men and manikins. What the season means depends so much on practicing what we preach—plowing not too wet, too shallow nor too deep, seeding aright, farming with brain and brawn through a right rotation!

It is not alone what we do. It is well nigh as much how we do. It is none the less when we do. The ways of May days decide the debit or credit rating of the year. May days as saved or spent cast the die as to whether one's year-end financial status will be blushing brunette or strawberry blonde.

Such is the wakeful work-time for better crop returns which (if we be truly thankful) means better homes and better citizenship, the goodly goal of a better agriculture. Such days in right ways waged—long hours afield as busy as a bee among the flowers—do busily bind the bargain for a goodly season, blessed with God's own sunshine and raintime!

The Missouri maiden in May-time is the sweetest and fairest flower in the wide world's garden of charms—the May girl whose glorious graces thrill and enthrall as she fills the land with joy and gladness and brings us the June wedding and its month of radiant roses. Without the May girl there'd be no joyous June with its bankruptcy of brilliant beauty!

The Missouri farm in May-time is the sightliest and the safest in the international field of finance. A-bloom with buds and blossoms, aglow with color and radiant in vigor, a score of crops in common command the armies of nature's world to slavishly serve the farmer who rises with the lark and works with wisdom in the fear of the Lord until shadows creep a-down fields of gray en-ground in golden glory.

Money in a Missouri farm is safer and surer than bags of gold in the Bank of England, at Berlin or Paris. Money loaned on Missouri land has the best security on the planet—in safety and stability, it ranks next to and first below the rustless and robberless treasures laid up in "that house not made with hands." Foreign bonds and domestic stocks pale in point of profit and permanency compared to money planted in a Missouri farm.

The Missourian who owns a farm today (be it large or small) is more independent, more fortunate, than if inheriting a knighthood across the seas—for we are at the threshold of the greatest agricultural era of the ages! Such a Missourian and his Missourienne are the finest fixed folk in the catalog of countries—kings, queens and nation spoilers not excepted!

Missouri swings ajar a thousand open doors for investment and development, in every section of the one hundred and fourteen geographical divisions of our commonwealth. Let him who owns Missouri land remember that every other acre will double in selling value within five years and that the annual increase ever exceeds the never-sleeping compound interest rate! Let him who has no farm look well to the more than half a dozen millions of acres undeveloped in "The Ozarks of Opportunity"—or to the more expensive portions of the corn and cotton delta of the southeast, the alfalfa and strawberry stretches of the southwest, or to the world's finest orchard hillside lands along the mighty rivers, or to the spreading valleys famous for their wheat, or north to the east and west in the bountiful belt yellow with golden corn, the king of money crops, and azure with the bluest of bluegrass!

Missouri, the haven of homes, wel-

(Continued on Page 13.)



Beautiful DINNER SET and Many Other Articles

FREE!

DESCRIPTION: This picture does not begin to do justice to the splendid new pattern Dinner Set we offer you. This Dinner Set is made of excellent material and each piece is full size. The set is pure white, tastefully decorated in the popular old rose and gold leaf design. The color scheme is artistic and there is just enough of the color work to give the set a refined, dignified appearance. This is a first-class, useful and practical Dinner Set and is used in many of the best homes.

THE DINNER SET CONTAINS:

- | | |
|-----------------|--------------------------|
| 6 Dinner Plates | 6 Fruit or Cereal Dishes |
| 6 Butter Plates | 1 Meat Platter |
| 6 Cups | 1 Vegetable Dish |
| 6 Saucers | 1 Cake or Bread Plate |

(33 DISHES IN ALL)

You Can Easily Get a Dinner Set Free

This magnificent 33-piece dinner set is the product of one of the finest and largest potteries in the world, the old rose and gold leaf design having become famous in aristocratic homes.

In the center of each piece there is a cluster of roses depicted in their natural colors and surrounded by the brilliant green foliage so that almost the only thing missing is the fragrance. The rich gold leaf border on the edge of each dish adds greatly to the beauty of the old roses, and makes this a valuable and beautiful dinner set.

Every piece in this large 33-piece dinner set is of high grade material, beautifully decorated, and large enough to please the most particular housekeeper.

115 High-Grade Needles



Be the first person in your neighborhood to get a set of these magnificent dishes. Sign the coupon below, right now, and mail it to us today, and we will send you one of our large sample needle cases, containing 115 of the very best needles in all useful sizes. We will also send you a picture of the dinner set showing the dishes in all their brilliancy and handsome coloring.

Every woman needs needles, and when your neighbors see this splendid great big needle case, they will want one just like yours. If they like it, tell them that they can have one of these large needle cases if they will hand you 25 cents in connection with a SPECIAL OFFER which I will write you about when you sign the coupon.

I know after you get my complete outfit and see the beautiful colored picture of the dishes you will be more than pleased. You will be surprised, astonished, at the ease with which you can earn this dinner set.

The first thing to do is to send me your name on the coupon and the whole outfit, including needles, colored picture of dishes, full instructions for getting the dishes and 41 beautiful extra gifts, will be sent you by return mail, so you won't have to lose any time in getting started.

MUCH PLEASED—WANTS ANOTHER SET.

I received my lovely 33-piece dinner set yesterday all O. K. I thank you over and over again for the fair treatment you have given me. The dishes are lots nicer than I expected. They look beautiful on my dinner table and are not cheap and clumsy, but nice and pretty. I expect to earn another set by your easy plan.—Mrs. R. Lawler, Deer Creek, Okla.

The 33-piece dinner set is not all you get by any means. The truth of the matter is there is so much to tell about this big new gift plan of ours that we cannot get it all in this space. It is full of SURPRISES and DELIGHTS for those of our friends who are willing to lend us a helping hand at spare times.

The very first letter you get from us will surprise you before you open it. It will also delight you by telling all about the big collection of rare and beautiful post cards which we want to give you in addition to the dishes.

And still, THAT is not all. One of the prettiest surprises of all is kept a secret until the day you get the dishes and find a pretty present that you knew nothing about. Isn't this a fascinating idea? And what makes it even more interesting is that we have something nice for every one of your friends and neighbors, too. We'll tell you ALL about it as soon as we receive the coupon with your name on it.

SIGN THIS COUPON TODAY

Century Mercantile Co.,
St. Louis, Mo.

I want to get a 33-piece dinner set and the 41 extra gifts. Send me the sample needle case, picture of the dishes in color, and tell me all about your big offer. It is understood I am placed under no obligation in signing this coupon.

Name

P. O.

E. F. D. State

PATTERNS FOR RURAL WORLD READERS.



In ordering patterns for waist, give bust measure only; for skirts, give waist measure only; for children, give age only; while for patterns for aprons say, large, small or medium.

1277—Ladies' Bib Apron.

Cut in 3 sizes: Small, medium and large. It requires $5\frac{1}{2}$ yards of 36-inch material for a medium size.

1284—Girls' Drawers, Petticoat and Under Waist.

Cut in 6 sizes: 2, 4, 6, 8, 10 and 12 years. The drawers require $1\frac{1}{2}$ yards of 36-inch material, the petticoat requires 2 yards, and the under-waist $1\frac{1}{2}$ yards for a 10-year size.

1284—Girls' Dress, With or Without Peplum.

Cut in 4 sizes: 6, 8, 10 and 12 years. It requires $4\frac{1}{2}$ yards of 36-inch material for a 12-year size.

1169-1166—Ladies' Costume.

Waist, 1169, cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt, 1166, cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires $7\frac{1}{2}$ yards of 36-inch material for a medium size, for the entire dress. The skirt measures $2\frac{1}{4}$ yards at the foot. Two separate patterns, 10c for each.

1045—Boy's Suit With Trousers.

Cut in 4 sizes: 3, 4, 5 and 6 years. It requires $2\frac{1}{2}$ yards of 44-inch material for a 5-year size.

1290—Ladies' Waist.

Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards of 44-inch material for a 36-inch size.

1269—Child's Rompers.

Cut in 4 sizes: 1, 2, 4 and 6 years. It requires $1\frac{1}{2}$ yards of 36-inch material for a 2-year size.

1068—Girls' Apron.

Cut in 5 sizes: 2, 4, 6, 8 and 10 years. It requires $3\frac{1}{2}$ yards of 27-inch material for a 6-year size.

1278—Ladies' House Dress.

Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires $6\frac{1}{2}$ yards of 44-inch material for a 36-inch size. The skirt measures about $2\frac{1}{4}$ yards at its lower edge.

1303—Pattern for Refooting Stockings.

Cut in 3 sizes: 8, 9 and 10 inches.

9680—Ladies' Kimono.

Cut in 3 sizes: Small, medium and large. It requires $5\frac{1}{2}$ yards of 44-inch material for a medium size.

1301—Ladies' Dress.

Cut in 6 sizes: 34, 36, 38, 40, 42 and

THE MERRY GAME CLUB FOR OUR BOYS & GIRLS

Conducted by the President—Esslyn Dale Nichols, 1527 35th St., Rock Island, Illinois.

Well, children, I hardly think we can crowd in four games this week as some of our games are quite long and take up more than the usual amount of room. But we will do the best we can, and if we can crowd in four we will do so. Our first prize game for this week was sent in by Ruth Wills of Woodlawn, Tennessee, whose game is called "I'm going to Florida."

I'm Going to Florida.

(Described by Ruth Wills.)

The players all sit in a row and the head one begins the game by saying: "I'm going to Florida." The second player says the same thing; then the third one says it and so on until all the players have said it. Then the head player chooses what (he or she) will take along on the trip to Florida. And this may be anything that can be taken on a trip, such as a horse or a cow or a trunk or a picture or anything, in fact, that one may care to choose. Then the second player chooses something, and the third player, and the fourth, and so on until all the players have chosen something to take along on their trip to Florida. Then the head player tells what is to be done with the thing taken on the trip to Florida. For instance, if the head player has chosen a horse—the head player will probably say: "I will ride my horse to Florida," and all the other players must "ride" what they have chosen to Florida. Then the second player tells what shall be done with the object (he or she) has chosen to take to Florida. If it happens to be a cow, the player will probably say: "I will milk the cow I am taking to Florida," and all the players must say they will "milk" what they have chosen to take to Florida. And so the game continues until all the players have told what they will do with what they have taken to Florida. This game is lots of fun and will cause many a laugh.

Ruth, we used to play this game when I was a little girl; only we called it "Rinkum." I am very glad to know that you are interested in the Merry Game Club. I will send you a prize soon. Our next prize game was sent in by Fanny Kelly of Fayetteville, Ga., whose game is called "The Crookedy Crab-apple Tree."

The Crookedy Crab-apple Tree.

(Described by Fanny Kelly.)

The players all sit in a row and the first player begins the game by handing a stick or a pencil to the second player and saying: "This is the crookedy crab-apple tree." The second player takes the pencil and hands it to the third player saying the same thing, and so on until the pencil has been passed clear down the line. Then the last player hands the pencil to the player sitting next and says:

44 inches bust measure. It requires $5\frac{1}{4}$ yards of 44-inch material for a 36-inch size, which measures $3\frac{1}{3}$ yards at lower edge of skirt.

These patterns will be sent to RURAL WORLD subscribers for 10 cents each (silver or stamps).

If you want more than one pattern, send 10 cents for each, additional pattern desired.

Fill out this coupon and send it to COLMAN'S RURAL WORLD, 718 Lucas Ave., St. Louis, Mo.:

Pattern No. Size Years

Bust in. Waist in.

Name

Address

"This is the grass that grows under the crookedy crab-apple tree." The pencil is passed clear up to the head of the line, each player saying the same thing. The first player begins by saying: "This is the crookedy cow that eat the crookedy grass that grew under the crookedy crab-apple tree." The pencil goes down the line, each player repeating this. Then the last player begins: "This is the crookedy dog that bit the crookedy cow that eat the crookedy grass that grew under the crookedy crab-apple tree." All the players repeat this. Then the first player starts the pencil down the line again by saying: "This is the crookedy gun that shot the crookedy dog that bit the crookedy cow that eat the crookedy grass that grew under the crookedy crab-apple tree." The last player then starts the pencil back by saying: "This is the crookedy man that held the crookedy gun that shot the crookedy dog that bit the crookedy cow that eat the crookedy grass that grew under the crookedy crab-apple tree."

Fanny, I expect our little members will find this a very interesting game. I will send you a prize in a few days. Following is a list of names and addresses from whom games have been received recently:

Nannie Lou Berryman, Dubberly, La.; Alton Perryman, Dubberly, La.; Vernie Phillips, Gravette, Ark.; Martha M. Smaully, Rose Hill Town, Boone, Pa.; Ruby Day, Oliver Springs, Tenn.; Jennie Kail, Jaqua, Kans.; Mattie Kail, Jaqua, Kans.; Augusta Vakienor, Livingston Manor, N. Y.; Frances Tutwiler, Culpeper, Va.

Johnnie Fielding, I sent you your prize the second time. Did you receive it? I wanted to print at least one more game this week, but we didn't have room. Good bye, little friends, I am glad that you are enjoying the club so well.

EGG COOKERY.

At this season of the year eggs are cheap and plentiful, and "egg dishes" should form a substitute for a portion of the meat in our menus. Eggs are a nutritious, substantial form of food; and when combined with cheese or left-over meats many pleasing dishes may be made.

Foamy Omelet.

Four eggs, one cup medium white sauce, one-half teaspoon salt. Beat the yolks until thick and lemon colored, add white sauce and heat thoroughly. Add the salt to the unbeaten egg whites, beat them until stiff and cut and fold them into the egg yolk and sauce mixture. Grease a frying pan, being careful that there are not dry spots, pour the omelet into the hot pan, lower heat and allow it to rise slowly. When the omelet is firm, place in the oven a few minutes to brown. Slit the omelet, fold and turn out on hot platter. Garnish with parsley.

Medium White Sauce.

One cup milk, two tablespoons flour, two tablespoons butter, one-half teaspoon salt. Heat the butter, add dry ingredients, mixing thoroughly, stirring constantly, cook thoroughly until the "raw" taste has disappeared.—Miriam M. Haynes, Colorado.

MISSOURI IN MAY TIME.

(Continued from Page 12.)

comes heart-sick or home-hungry citizens of every land and clime, pointing the way to paths of prosperous peace, to our forty-four millions of ardent acres. Welcome, every lover of industrial freedom and human justice, to good old Missouri hospitality where manly merit and womanly worth mark and measure the sterling standard of social honor, in a land unspoiled by sly fashion's craven touch!—Jewell Mayes, in the 1915 Yearbook of the Missouri State Board of Agriculture.

Precipitated chalk is excellent for cleaning tarnished silver. Place a little in a saucer and add just enough liquid ammonia to moisten it. Rub this lightly over the silver, and the stains will quickly disappear. Then wash in hot suds, dry carefully, and polish with a clean chamois leather.

The Blood of His Ancestors

By Vaughn Kester

(Copyright, 1915. The Bobbs-Merrill Co.)

WHEN he told me his story, pre-facing it with a scrap of philosophy, John Norton assured me it differed from that of scores of other men of his class but in one or two unimportant particulars. He gave it as his opinion that one need not necessarily be a genius to get ahead in this world; there are other qualities almost any man can cultivate which command opportunity, and in spite of the fact that he spoke with the authority of a rather conspicuous success, he disclaimed the possession of any special ability above the average.

To begin with, Norton had much of the cheerful ambition characteristic of the average American. He had been thoroughly drilled in the idea that the one thing needful, if one wished to get on, was industry—given this, the results were as certain as that two and two make four.

He was a broad-shouldered young fellow, more than commonly prepossessing, with an utter absence of any ability for sharp practice; indeed, he was inclined to view his fellows with a gentle kindly confidence that proved costly until he learned caution, and even then he was not bitter, only a little hurt.

He came of honest stock and of people in comfortable circumstances, proud of their traditions and their respectability and rather regretful of the fortune old General Norton had somehow lost when he emigrated from Virginia to Ohio in 1841.

Perhaps John would not have felt called upon to make the plunge into business had his father kept his name off the notes of his neighbors; as a consequence of his indiscretions the broad acres he had inherited slipped away piecemeal.

John was the eldest of four boys and the first to leave home. At twenty he went East. He recognized that he would probably have a good many ups and downs before he finally got placed, and he was thankful his career was to be among strangers.

He was not much worried in the beginning over ways and means, for his father sent him money each week, and small as the sums were they gave him a pleasing sense of security. He soon discovered that merely to make a living can be a difficult problem; it also dawned upon him that he reached the solving of the problem in a roundabout fashion through a haze of uncertainty.

After his father's death, when it became necessary for him to make his own way unaided, he brought to the task a sad earnestness. He was, he felt, without business tact—indeed, the word business comprehended all of which he was most ignorant. He could never impress people with the importance of those benefits they would derive from thinking as he wished them to think, for he was never quite sure about the benefits. He could feel himself shrink and dwindle and grow limp, when what he needed was a convincing force. Still it continued part of his faith that there was some work he could do well, and that sooner or later he would have the opportunity to do it. He was a little shocked to find that there was no particular merit in being well-born and well-bred.

He was in rapid succession clerk, traveling salesman, bookkeeper, advertising solicitor and real-estate agent; he went from place to place hoping each time he made a change, that now he was nearer success.

Meanwhile his mother died, and the home had been sold to pay his father's debts. His brothers had scattered—one was in California, a clerk in a store, another was a miner in Colorado, a third had gone to South America, while Tom, the youngest, was editor of a country newspaper in Texas.

At thirty John married, and wisely

concluded that the day for experiments was past. The idea that he was to acquire riches he put resolutely aside; if he could make a decent living it was all he dared expect.

It remained for Mr. Thomas Haviland, of Bliss, Haviland and Company, to give him his opportunity. When he got with this concern, John felt the connection to be a really notable one. The position carried a salary of twenty dollars a week with a fortnight's vacation each summer on full pay. There was one drawback. The managing director had the reputation of being exacting and hard to please, with a disagreeable temper and variable moods, but John was fully prepared to make some sacrifices to obtain steady employment. He wanted to be thrifty and sensible. One of the first things he did was to have his life insured. This gave him a solid and substantial feeling, alike new and comfortable. Later, perhaps, he would be able to open a bank-account.

He was relieved to find he could do this work, about which he had had

many misgivings, as well as there was any need for it to be done. He was fortunate in the start in escaping all personal contact with Haviland, or his satisfaction with himself and his lot might have been less pronounced. The managing director had a genius for taking the very marrow out of a man's bones and the hope out of his heart. On principle he never respected those in his employ. He would probably have explained his attitude by saying it was impossible to respect men who were content to earn beggarly salaries of from fifteen to thirty-five dollars a week. Even at these prices it must be owned he contrived to surround himself by an uncommonly low grade of business intelligence. Perhaps he liked the contrast it offered to the vigorous grasp he always maintained on affairs.

The clerks carried on their work in fear and trembling, conscious that at any moment Haviland might come out of the private office, purple-faced and furious over a trifling blunder, to lash them with sarcasms that cut like a

knife—or even worse, some poor devil would be summoned into the private office to explain; an utterly hopeless proposition, as Haviland could not sit quietly through an explanation. He made mistakes himself, but he refused to recognize the right of others to do so; at least he would not listen to their excuses. He complained continually that the clerks wasted his time, which he valued at a fabulous figure, but he would spend half a morning criticizing the mental equipment of a shaking, underfed, five-dollar-a-week man, and then dismiss him as if he were the scum of the earth—a mere thing.

John saw and heard a good deal that filled him with astonishment the first few weeks he spent in the office of Bliss, Haviland and Company, and he decided that Haviland was not a gentleman, and when he discussed

FREE TO ANY WOMAN. Beautiful 42-Piece Gold Decorated Dinner Set for distributing only 1 dot. Free cakes of Completion Soap. No money or experience needed. W. T. KERRILL WARD, 214 Institute Place, Chicago

Get These Three Dolls

In every home where there are little girls or boys there should be plenty of dolls to make the little folks happy—and I will make it easy for you to get them.

Every little girl or boy will love Anna Belle and her two baby dolls. The illustrations on this page do not begin to show to you what these dolls really are. This is by far the prettiest family of dolls we have ever offered our readers. We have sent thousands of dollies to girls and boys, but Anna Belle is different and prettier than all others. Anna Belle is bigger than a baby—over two feet high—baby clothes will fit her and you can bend her legs and arms without fear of breaking them. She can sit up in a chair or sleep in baby's own bed. Any little girl or boy would be proud to have Anna Belle as a playmate. The two smaller dollies are "Buster" and "Betsy"—Buster is a husky boy doll with a red striped sweater; "Betsy" is a little beauty and very lovable in her bright red coat. Both the little dollies are fully dressed.

The Best Playmates

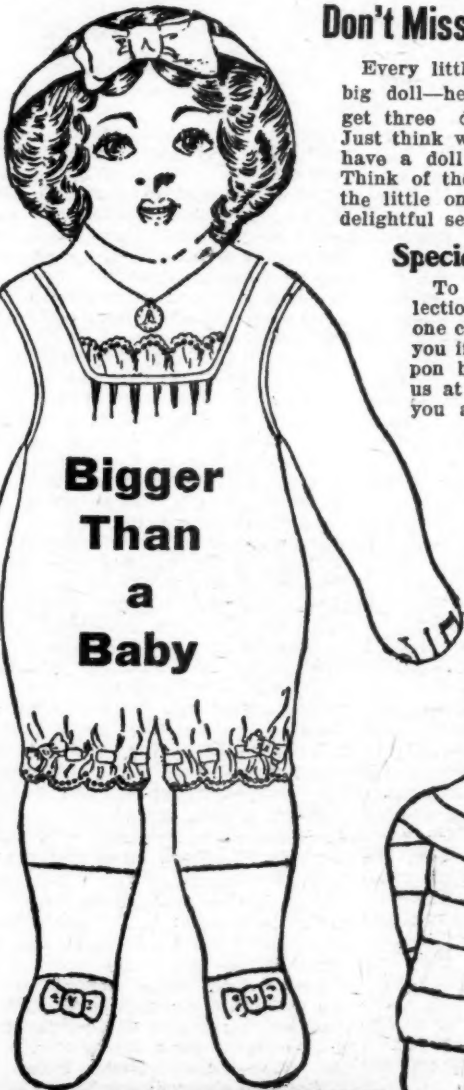
Any child will be greatly amused with this doll family and will play all day with Anna Belle, Buster and Betsy. They are practically unbreakable and will stand hard usage for years. These dollies are better for the little folks than bisque or china dollies, because they won't break, soil their pretty hair or lose their eyes, and are so inexpensive every girl or boy reader can afford to own them.

Parents

Every little girl wants a big doll. Little boys also. Think of the innocent happiness and pleasure your child would derive from owning these three dolls. Then satisfy the craving for something to love and something to play with by sending for this outfit.

Lots of Fun

to be had with these three dolls. The little girl or toddling boy who owns these dolls will just be the happiest little tyke to be found for miles around. The big little girl who owns Annabell can dress her in her own clothes and have the loveliest time! Then the baby dollies—to cut and sew for—what could be more instructive and entertaining?



SPECIAL 30-DAY OFFER

People's Supply Co., St. Louis, Mo.

Enclosed is 15 cents (stamps or coin) for which send me one set of dolls as advertised.

Name

P. O. State

Don't Miss This Opportunity

Every little girl or boy wants a big doll—here's an opportunity to get three dollies instead of one. Just think what fun it would be to have a doll family in your home. Think of the joy and happiness of the little ones when they get this delightful set of three dollies.

Special 30-Day Offer

To introduce this big collection of dolls we will send one complete set (3 dolls) to you if you will sign the coupon below, and return it to us at once with 15 cents. If you are not entirely satisfied when you get the dolls we will return your money. Most dolls are imported and there is going to be a great scarcity this year, so we advise you to order early.

his character with Alice at home of an evening he said a good many hard and bitter things, for they talked of him incessantly; he was the one topic in the homes of all the men in the office; he lowered the tone of their lives, and brought servility and fear into the lives of their wives and children. - That John escaped insult, he attributed to luck; apparently there was no protection in the fact that he was earnest and conscientious. Gordon, the old bookkeeper, who had been with the firm forty years, was a model of industry and exactness, yet he was in hot water pretty much all the time when he was not in deep water and trembling for his position.

To be sure Haviland had his own disappointments and his nerves were on edge most of the time. He was greedy of gain, but more greedy of fame—or the irresponsible notoriety which he mistook for fame, and which was perhaps sweeter to him than a responsible fame would have been with its obligations, and he hated the directors, who seemed in league to limit him to a conservative business with reasonable profits.

John, whose ancestors, since the days of the Norman Conquest had taken a hand in almost every war in Anglo-Saxon history, resolved that if Haviland ever "went for him" as he did for the rest, he would let him have the ink-well or some similarly convenient missile, but he was more and more grateful as the days ran into weeks and the weeks into months, that nothing unpleasant occurred involving him.

He had been with Bliss, Haviland and Company almost a year when one afternoon, Gordon, the bookkeeper, came out of the private office a dull tallowy white, with blue-drawn lips. He stopped beside John's desk.

"Mr. Haviland wants to see you," he said. "You are to go in now—right away."

As John turned to obey the summons he ran over uneasily all those matters that had gone wrong in his department and for which he could possibly be held responsible. As he raised his hand to knock on the door of the private office he decided that happen what might he could not afford to lose his temper. He reached this decision quickly, and when he heard Haviland call "Come in," pushed open the door. Haviland was seated at his desk, and the expression on his face was not reassuring.

"Oh! It's you, Norton; take a seat—I want to speak to you."

John closed the door and at a sign from Haviland sat down in the chair at the managing director's elbow, which one of the clerks who retained a sense of humor had christened "The Mourners' Bench." Haviland swung round and faced him squarely.

"I shall have to send Gordon away," he said. "How would you like his place?"

(Continued Next Week.)

NOTES FROM "EGYPT."

(Continued from Page 2.)

This year we ordered of a firm, the head of which has a national reputation as a lecturer on corn and alfalfa. They advertise that their corn is "rubbed and tipped, shelled and graded." Well, we ran it over a grader, and I wish you could see the stuff we took out—small and broken grains. We paid only \$2.50 for it, but one can afford to grade it even at that price.

We have nearly failed on corn for two years, but hope to raise our own seed this year.

Two years ago a neighbor bought and applied a car of lime dust at the rate of four tons to the acre and sowed clover. It was so dry that the clover died before fall. Last year he sowed again with the same result. He now offers anyone \$20 a ton who will grow a ton and a half of clover on that land. We may try it. We took him to our clover-alfalfa patch that promises that much.

We are to have a "whirlwind" campaign in our county for "Better Farming,"—47 meetings in two days. The "I. H. C." people are furnishing the speakers. They are spending a million dollars along this line and hope to get it back by increased demand for machinery.—"Agricola," Illinois.

COW-TESTING ASSOCIATIONS INCREASE.

One hundred and sixty-three co-operative cow-testing associations were in operation last year in the United States. This is considered to be a rapid growth when it is remembered that the first association in this country was organized in Fremont, Michigan, in 1905, and that as late as 1908 only six associations had been formed. The next year, however, the number rose to 25 and it has been increasing rapidly ever since.

The principle on which these associations work is both extremely simple and yet important. Year after year many farmers milk cows that do not pay for the feed they consume. Indeed, the average annual production of a cow in this country is approximately 4,000 pounds of milk, containing 160 pounds of butter fat. The best dairymen say there is no profit in such production, and of course, there are vast numbers of cows that fall far below these figures. To make his herd a success, therefore, the farmer must weed out the animals that are costing him money and keep those that are bringing it in to him.

This, however, is not so easy as it may seem. Experiments continually show that it is impossible for any man, however experienced he may be, to estimate with any accuracy the yearly production of milk from any cow. Some animals start with a very good production and then drop to a very ordinary flow, while others give a much more regular yield. The latter may at the end of the year have given the farmer much more milk, but he will probably consider the former to be the profitable ones. As a matter of fact a man can not guess within a quart how much milk there is in a pail, and if he is selling the product of his herd on a butterfat basis he knows even less of the yield from each individual animal. By joining an association the farmer can have these things determined for him by an official tester.

That a cow-testing association actually does pay has been proved beyond all doubt. Since the first organization of this kind was formed, in 1905, 76 for one reason or another have been discontinued. On the other hand the records of those in operation show excellent financial results. There are seven herds that have remained continuously in the Michigan association ever since it was formed, in 1905. In 1906 they included 50 cows and in 1913, 69 cows. In 1906 the average yield for each cow was 5,885 pounds of milk and 231.1 pounds of butter fat; in 1913 it was 6,123.4 of milk and 284.7 pounds of fat. In the meantime prices of both feed and dairy products had risen. The profit, however, to the dairymen in the association rose as well. For each cow it was, in 1906, \$22.23 and in 1913 it was \$51.08, or an increase of \$28.85. It certainly paid these dairymen, therefore, to employ a tester even if it cost them \$1.50 a year for each cow.

Not only do these records show which cows make or lose money for their owners, but they show to what extent each is profitable, the amount of feed given to each cow, and what kinds of feed at prevailing prices produce the most satisfactory financial results.

STICK TOGETHER.

When establishing a co-operative creamery, the co-operators ought to be determined to stick together at any cost. The big companies will come in and pay a few cents above the market price until all the patrons have deserted the co-operative creamery and then, having bankrupted it, will at once lower the price. Co-operation will then be driven out of that community for years.

PROMOTER CREAMERIES.

"Beware of promoters in the co-operative creamery business," says G. E. Frevert of the United States Department of Agriculture. The promoter wants to sell machinery. He urges formation of a company on too few guaranteed cows. He counts cows that ought to be counted with the steers. The machinery costs you three times what it ought to cost.



Special Limited Offer!

Here positively is the greatest novelty of the age. Copy of new testament, bound and illustrated, the size of a postage stamp, is enclosed in a simulation watch to protect from damage. Can be carried or worn. Said to be a lucky charm and bring good luck to the wearer. Every man, woman or child should carry this smallest bible on earth with them. While the supply lasts we will send the smallest bible on earth in the simulated watch case for only 15 cents. Send stamps or coin. **PEOPLES SUPPLY CO., St. Louis, Mo.**

Farmers' Classified Department

70,000 PAID CIRCULATION

RATE ONLY TWO CENTS A WORD

Colman's Rural World has a family of over 70,000 paid in advance subscribers every week. This means that at least 350,000 farm folks are readers of these columns. Figure the cost of sending each of these readers a personal letter each week and then compare that cost with the low rate at which you can reach them ALL through the Classified Columns below. Count up the words in your advertisement, including initials and numbers which count as words, and multiply by two and you will quickly appreciate how low the cost is to reach these 70,000 buyers every week. No advertisement less than 10 cents accepted—and no fakes under any circumstances. Cash must accompany all orders.

ADDRESS,

Colman's Rural World Advertising Department 718 Lucas Av., St. Louis, Mo.

POULTRY.

Barred Rocks.

EGGS—Barred Plymouth Rock—\$4 per 100. B. F. Masters, Arlington, Neb.

FANCY Barred Rock eggs, \$1.50 and \$2.50 for 15. E. B. Thompson Ringlet strain exclusively. Fifteen years' experience breeding Barred Rocks. Prompt service. Satisfaction guaranteed. J. H. Hart, Thomasville, Ill.

BARRED PLYMOUTH ROCKS, Thompson Ringlet strain. Pen eggs, either cockerel or pullet mating, \$2.00 for 15. Utilities, \$5.00 for 100, \$3.00 for 50, \$1.00 for 15. Orders booked in advance. Circulars free. Many satisfied customers in 37 states. A. F. Siefker, Deane, Mo.

Plymouth Rocks.

BIG PRIZE-WINNING White Plymouth Rocks. Never defeated. Eggs, \$1.25 per 15; \$3.00 per 45. W. W. Liebhart, Nemaha, Neb.

Hamburgs.

SILVER SPANGLE HAMBURG, cockerels, \$1 up; eggs, \$1.50 per 15. Shearle Baskett, Boyd, Ky.

Leghorns.

24 SINGLE COMB Brown Leghorn eggs, postpaid, for \$1.50; 15 for \$1.00. Mrs. Percy Streeter, Hamilton, Mo.

ONE HUNDRED S. C. Brown Leghorn eggs, three dollars. Great egg strain. Mrs. F. P. Browning, Appleton City, Mo.

S. C. WHITE LEGHORNS, took first prize 1914; 17 eggs, \$1. Satisfaction guaranteed. Chas. S. Dobson, Osborn, Mo.

SINGLE COMB BROWN LEGHORNS. Eggs, 25c for 15; \$3.50 for 100. W. H. Wilson, Route 1, Box 99, Warsaw, Mo.

Orpingtons.

SINGLE COMB White Orpingtons, breeders for sale, St. Louis, Cincinnati and Arkansas state show winners. Males, \$2; females, \$1.25; pens, five birds, \$8. W. G. Langenhennig, Jackson, Mo.

Rhode Island Reds.

SINGLE COMB RED eggs; stock from prize winners; 25 per cent fertility guaranteed; 15, 75c; 100, \$4.00. Mrs. Jno. White-law, Lawrence, Kans.

ROSE AND SINGLE COMB Rhode Island Reds. Big boned, dark, velvety red. Trapped and bred to lay. Sell cockerels cheap from the finest strain and best blood lines. Eggs in season at a low price. Ava Poultry Yards, Ava, Mo.

Ducks.

FOR SALE—One prize-winning fawn and white Runner ducks. E. F. Rock, Montrose, Mo.

FULL BLOODED Mammoth Pekin duck eggs, \$1.00 per 12. Mrs. A. Brower, Rinehart, Mo.

FISHEL STRAIN White Indian Runner duck eggs, \$6.00, 100; \$1.00, 12. Guarantee 50 per cent fertile. James Harris, Latham, Kans.

Guineas.

WHITE GUINEAS, \$3 per pair. Eggs, \$1.50 per fifteen. Mrs. F. E. Wentz, Burlington, Kan.

Several Varieties.

TURKEY EGGS, Mammoth Bronze, Bourbon Red, Narragansett and White Holland, \$1.50 per 12. Yours for an honest deal. Walter Bros., Powhatan Point, Ohio.

EGGS! EGGS! From thoroughbred turkeys, geese Muscovy's, Rouen, Pekin and Runner, ducks; pearl and white guineas; Rocks, Houdans, Wyandottes, Hamburgs, Leghorns, Orpingtons, Cochins, Langshans, white and silver laced Wyandottes, Rhode Island Reds. Hen eggs, 15 for \$1.00. Also, rabbits, hares and fancy pigeons. Write for free circular. J. L. Bruce, Platte Center, Neb.

Wyandottes.

COLUMBIAN WYANDOTTES—Eggs, \$1 setting, \$5.50 per hundred. Fancy pigeons. J. J. Pauls, Hillsboro, Kan.

Turkeys.

NARRAGANSETTE TURKEY EGGS for sale, \$4.00 for ten. Mrs. Luther Murphy, Tebbetts, Mo.

SEED AND NURSERY STOCK.

WHIP PEAS, \$2 a bushel. F. Glesker, Lutherville, Ark.

SWEET CLOVER, white and yellow. Mrs. J. T. Mardin, Falmouth, Ky.

SUDAN SEED, free from Johnson grass, 20c lb.; 50 lbs., \$8.00; 100 lbs., \$13.00. Dr. Ballinger, Lubbock, Tex.

PURE SUDAN SEED—Free of Johnson grass; 10 pounds, \$2.50 postpaid, by grower on experimental farm. G. H. Branham, Slaton, Texas.

SUDAN GRASS guaranteed pure seed 25c pound; special price large quantities; valuable descriptive booklet and sample seed free. C. Ulery, Lubbock, Texas.

HELP WANTED.

WANTED—Men and Women, 18 or over, for Government jobs. \$75 month. Write immediately for list of positions now obtainable and free sample examination questions. Franklin Institute, Dep't. T 167, Rochester, N. Y.

FARMS AND LANDS.

LITTLE RIVER VALLEY LANDS—Rich and cheap, on railroad. Robert Sessions, Winthrop, Ark.

BARGAIN—165 acres; 10 cultivated; improvements; well located; 6 miles Salem, Mo.; \$825 cash gets it. E. G. Enslow, Gaffney, S. C.

80 ACRES in northwest Arkansas, 60 in cultivation, 10 acres in orchard; good house, barn. Price, \$1,000. Terms. Ed. Weld, H. 2, Green Forest, Ark.

8,000-ACRE RANCH FOR SALE at one-half value. Quick! Snap! one mile off railroad. Address owner, A. J. Johnston, 232 Landers Bldg., Springfield, Mo.

BEES AND HONEY.

BEST QUALITY new clover honey, 30-lb. can, \$3.45, two or more cans, \$3.30 each. Sample 10c. Price list free. M. V. Facey, Preston, Minn.

GOATS.

MILCH GOATS—Swiss, American Toggenburg, Saanen, heavy milkers and does not kid; breeding stock; pea fowl, swan, martin, mink, otter. (Prospectus 10c.) Golden West Farm, Dept. 75, St. Paul, Ark.

PATENTS.

PATENTS SECURED or fee returned. Send sketch for free search and report. Latest complete patent book free. George P. Kimmel, 230 Barrister Building, Washington, D. C.

BUSINESS OPPORTUNITY.

FREE FOR SIX MONTHS—My special offer to introduce my magazine "Investing for Profit." It is worth \$10 a copy to anyone who has been getting poorer while the rich, richer. It demonstrates the real earning power of money, and shows how anyone, no matter how poor, can acquire riches. Investing for Profit is the only progressive financial journal published. It shows how \$100 grows to \$2,200. Write now and I'll send it six months free. H. L. Barber, 477-28 W. Jackson Blvd., Chicago.

MISCELLANEOUS.

FREE! 20 beautiful postcards, if you pay the postage, 4 cents. Fred King, Sunnyside, Wash.

PUT UP YOUR FRUITS and vegetables in tin cans with "Home Canner," catalogue free. Southern Canner Co., McKinney, Tex.

400 THINGS worth knowing; a large 5-volume book; alphabetically arranged; wonderful reduced price. Guaranteed or money refunded. Sent postpaid, for \$1.00. I. R. Emerson, Kittingham, Pa.

WHEELBARROWS, the Farmers' Pride Wheelbarrows, hand made. The strongest, easiest running, and prettiest barrow manufactured. Freight prepaid. Send at once for illustrated circular. Address, N. H. Parkinson & Sons, Kent, Illinois.

FORMULAS: For making whitewash durable as paint; much cheaper. Solution for cleaning silver; to make waterproof cloth; waterproofing compound; cleaning compound; foot powder; baking powder and best salve, 10c each, all for 25c. H. Schwake, Glassport, Pa.

POULTRY RAISING FOR FUN & PROFIT

PRACTICAL METHODS IN POULTRY RAISING.

The foundation of successful poultry raising is a flock of good breeders. In mating up my best breeding pens, I use two-year-old hens that are healthy and vigorous, and have laid at least 150 eggs, trapnest records, in their pullet year. I always keep four main points in view,—laying qualities, size, shape and color, in the order as they are named. To mate with these I select an early hatched cockerel that is vigorous, robust and well matured, and is as fine an exhibition bird as I can raise from as high an egg record hen as possible. If I introduce new blood into the flock from the male side, I make a small mating the first year of three or four of the best hens I have that I think will give the best results. And then if the offspring is up to expectations, I do not hesitate in using it. If introduced from the female side, I mate her to the best cockerel I think is suitable.

Personally, I think mating fathers to daughters, and sons to mothers is too close. From my own observation it wrecks vitality.

Hatching.

In selecting eggs for hatching purposes, it pays to candle the eggs first and reject all eggs that show thin places in the shells. And to set only eggs that weigh two ounces or more and that have good smooth shell and good shape. If using sitting hens for hatching the eggs, I prefer to use only 13 eggs to the setting, as I find there are fewer eggs broken, and the hen has a better chance to keep all the eggs warm, especially during the early part of the season.

I prefer sitting hens to incubators. Hen-hatched chickens have the advantage, if there is any, for the simple reason that there are fewer in each flock and each chicken has a better show. The greatest trouble with incubator chickens is caused by keeping too many in one flock. With the mother hen, the flocks are small, and she never gets too hot or too cold.

In selecting sitting hens, I find that as a general rule, two-year-old hens make the best sitters and mothers. Be sure your hen has thoroughly made up her mind to sit before moving her. Then move her at night to the hatcher.

In moving my hens to the hatcher, I put them on artificial eggs for a day or two until I am satisfied they will sit and is satisfied with their new quarters. They are taken off at noon each day and given feed and water and a chance to exercise, for I find that hens that have no exercise become out of condition. For their feed, I give half wheat and half corn. I do not think best to give them any soft feed. While the hens are off, I inspect the nests, and see that everything is all right.

After Hatching.

When the chicks are hatched, they should be left alone for 24 to 36 hours and then each hen should be put in a coop to herself with not over 15 chicks. If hatched early, I use colony coops 4 by 8 feet, and 2½ feet high in the rear and 4 feet high in front, with glass and canvas front facing the south so that they will have plenty of sunshine and fresh air. This coop is divided into three sections, so that it will hold three hens. And for the latter hatched chicks, I use individual coops with screen wire fronts.

We keep the hen and chicks confined on rainy days and mornings until the dew is dried off. These coops are all placed on fresh ground, on free range, and as far apart as practicable.

I find that good corn bread makes one of the best feeds for young growing chicks. It is a feed they never grow tired of. In connection with this, we feed plenty of green feed and gradually work into feeding wheat

and cracked corn and soaked oats, and all the sour milk we have to spare.

As soon as the chicks are weaned and are old enough to fly up to roost, we remove the partitions from the colony houses and put in roosts. And the birds in the individual coops are trained into wire colony coops with good sheet iron roofs, which keeps them practically outdoors, and yet protected from heavy rains.

In Hot Weather.

During the extremely hot dry weather, I provide plenty of good fresh water and shade, and soak my feed 24 hours, equal parts of corn, wheat, and oats.

As fast as my birds become large enough to market, I cull closely and in this way avoid overcrowding.

In selecting my pullets, I conform to the standard mentioned in selecting breeding stock. They are removed to winter quarters where they are kept for two or three days until they have become accustomed to their new quarters when they are turned out again. They are on free range at all times excepting during the severest weather when they are confined to the poultry house, which is either an open front or a Missouri "foolproof."—From an address delivered by Chas. A. Brant, of Richmond, Mo., at the Missouri Poultry Show, St. Louis, last fall.

Nuggets and Notions

In Agriculture By "Observer."

EVERY farm should have a rainy-day house, fitted with tools for farm repairs. This should contain an anvil, a work bench, tools and repairs for harness, etc. If a small modern forge be there, some plows may be sharpened. By all means have an emery wheel.

Let us hasten all canning processes. In these are the outlook for the saving of great waste and the cheapening of living, and, what is as good, canning furnishes a new field of growth and production. Co-operative canning is almost in sight, in which every neighborhood will have its canning plant.

Lyon beans are becoming a favorite crop in the far south. Hogs eat them greedily and they make a firm, well-flavored pork.

The man who rejects one incubator possibly because it consumes a half gallon more of kerosene than some other had better buy himself a peanut stand. A large consumption and a large waste of heat out of the flue when the regulator is lifted are elements of good regulation, and they

should be provided for. Half a gallon of oil costs five cents these days. Would you risk a hatch on the saving of that?

When you know that you will plant soon, it will nearly always pay to soak or dampen seed. Replant seeds should be sprouted. It is asserted that mixing a little sulphur with the soaking water hastens growth.

The South this year has sown an unusual acreage of oats. This is likely a reaction from so much cotton. In lieu of this sugar cane also is being put in. Syrups at 25 cents a gallon is a profitable crop.

One southern woman says that with her home canner and the help of some neighbors in peeling peaches on the shares, she has put up 500 three-pound cans in a day, and that canning tomatoes pays even better than peaches. Here is where we are coming.

The greatest depressor of co-operation marketing is that there are such variations in quality. A grading committee is a necessity here.

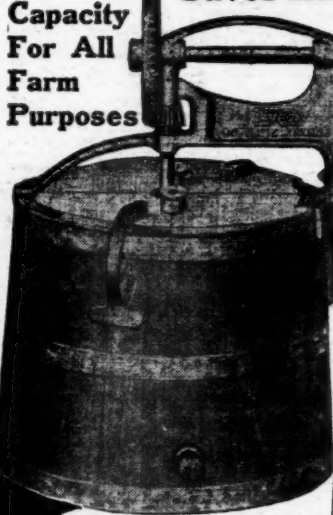
Milk from a whole herd can be ruined by saving that from a cow too close to her calving time on either side. Watch this closely.

Good sanitation, good feed, good care and good serum—these are about all there is of the hog subject, except good stock, of course.

This Wonderful Machine Has Actually Revolutionized Butter Making on the Farm

Capacity
For All
Farm
Purposes

Saves Half the Work—Makes More and Better Butter



Instead of the old, tiresome way of churning an hour or more to make the butter come, you can take the same amount of cream you are now churning, put it in a Fayway and get more and better butter in half the time it is possible for you to get in any other way under the most favorable conditions. It does away entirely with the muss and drudgery because the Fayway is the easiest running buttermaker ever invented.

Now these are facts—not extravagant claims. Thousands of farmers are getting these results with the Fayway right along. Read what John Andrews, owner and editor of Kimball's Dairy Farmer, has to say about this great buttermaking machine; also what a few owners write us about the wonderful success they are having with it.

Absolutely The
Sanitary—
Easy to
Keep Sweet
and Clean
Fayway
Butter Separator

Will Last A
Lifetime—
Nothing to
Get Out of
Order



**FREE
CARTONS,**
Parchment Paper
and Butter Mold

CARTON made from heavy, solid manila board, paraffined both sides—highest quality board ever used in a butter carton. Quicker and easier to fill than any other—no long open seams to admit air. Holds shape till destroyed. Keeps butter fresh, clean and sweet.
PARCHMENT WRAPPING PAPER. Your name and address printed on each sheet—a big advertisement for your butter. These wrappers act as protection and keep all impurities and odors away from the butter.
BUTTER MOLD. Made of hardwood maple. Molds butter into prints that fit regulation 1 lb. cartons. All of above furnished FREE to every purchaser of a Fayway Butter Separator.

Not a churn, but a scientific, practical machine that works on an entirely different principle from any churn ever made. All churns beat or whip the butter fat out of the cream. This breaks the fat globules and makes greasy, salty butter that spoils quickly. The "Fayway" has a center hollow shaft through which a strong current of air is forced, blowing all the butter fat upward where it quickly forms into golden, pea shaped granules, ready to be worked. Absolutely free from impurities of any kind, the butter is washed and worked in half the time "churned butter" requires. And, oh, such butter! Firm and waxy in texture, of superior grain and beautiful golden color, you'll say it's the finest you ever saw or tasted! No wonder that, packed in Fayway 1 lb. cartons, it brings 5c to 10c more per pound than ordinary dairy butter. It's worth it!

30 Days Free Trial

If you were absolutely convinced of the truth of everything we have here told you about the Fayway, you'd buy one in a minute. But it sounds almost too good to be true, so perhaps you are not to blame if you are a little bit skeptical. Why not, then, let us convince you by sending you a Fayway for a 30 days free trial. You'll be under no obligations to keep or pay for the machine if you are not convinced that every word we say is true or if for any reason at all you don't wish to keep it. The 30 days trial is ABSOLUTELY FREE.

\$1,000 Bank Guarantee Bond

We have deposited \$1,000 with a Cincinnati Bank as a guarantee that we will faithfully perform our every promise to anyone sending for the Fayway for a free trial. You can't possibly lose a penny by taking advantage of this liberal free trial offer because you risk absolutely nothing.

Don't overlook the fact that we also furnish every purchaser of a Fayway with Cartons, Parchment Wrapping Paper and a 1-lb. Butter Mold—all free. With this Fayway buttermaking outfit you can have a complete creamery right on your farm—a creamery that the women folks can tend to because the little work involved is so easy and pleasant. Yes, and put up in these attractive, sanitary, dust and moisture proof cartons your Fayway butter can hold its own with the best creamery butter in the land either in the store or with private trade—and command the same fancy prices. Any number of Fayway owners tell us they actually get

5c to 10c More Per Pound than they were ever able to get for their best churned butter. The extra profits from the same amount of cream you are now churning will quickly pay for a Fayway many times.

Complete Course in Buttermaking Free Shows how to build up a big, profitable butter business. You need this course, no matter how much you know about buttermaking.

Mail Coupon Now! For free facts and proof. Send now—you're losing money every day you delay.

THE FAYWAY CO., 109 John St., Cincinnati, O.

NAME.....
TOWN.....
R. F. D.....
STATE.....

What John Andrews Thinks of The Fayway

The Fayway is a new kind of a butter separator that came out with what looked like extravagant claims. We did not care to advertise it to our readers until these claims were established to our satisfaction. We sent a man to Cincinnati and unknown to the manufacturers, he spent a half day in a dairy where the Fayway Butter Separator was being used. Our man saw it do all and more than was claimed for it, and came back enthusiastic. The manufacturers of the Fayway have confidence enough in their machine to stand back of it with the strongest kind of a guarantee. We made an investigation that satisfies us that it is a good thing.

Makes Best Butter In Town
When I first tried to make butter, I worked for hours, and then had inferior butter. I tried many churns, and heeded all advice, but after a year I was still making poor butter and wasting a lot of cream. By chance I saw the Fayway advertised, and I wrote for one. Since then my troubles have ceased and although I have lived on a farm less than 3 years, I now have the reputation of making the best dairy butter in town, and the credit is all due to the Fayway.

The Fayway Co. has absolutely lived up to their agreement and by following their advice, I have recovered at least 10 per cent more butter from my cream and marketed it at top price.

MRS. J. W. McCLOY, Eden, Mo., U. S.

Butter in Exactly 5 Minutes

After heating our cream to 60 we proceeded to churn; it took me exactly five minutes to make the butter. Hereafter we have taken from seven to eight hours to churn the same amount of cream. Our cows are all strippers, and it is a hard matter to make butter with the old style churn. My wife is delighted with the Fayway, and no more proof is required. You had given me thirty days in which to try it, but this simple trial is sufficient.

CHARLES U. SIMONS, Mora, New Mexico.

Demand For Fayway Butter

Larger Than I Can Supply

The Fayway Butter Separator certainly does make fine butter; no hard work with ladle after it comes home. I work it just 5 minutes and it is as fine as silk. Have tested the butter in a varying temperature and after 3 weeks it was as good as the day it was churned. Already my demand for Fayway Butter is larger than I can supply.

MRS. FRED KOHLER, Hamilton, Ohio.

This Fayway Butter Brings

7½c More Per Pound

We have raised the price on our butter from 30 to 37 1/2c per lb., or better still our customers have raised it for us since we are using your machine.

J. H. BOWLER, News Ferry, Va.